

Method and system for managing resources using geographic location information within a network management framework

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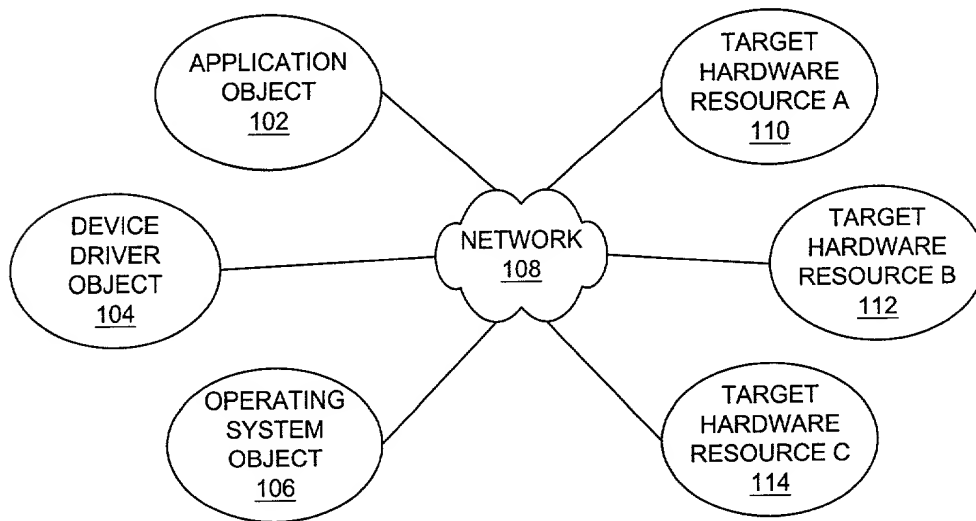


FIG. 1
(PRIOR ART)

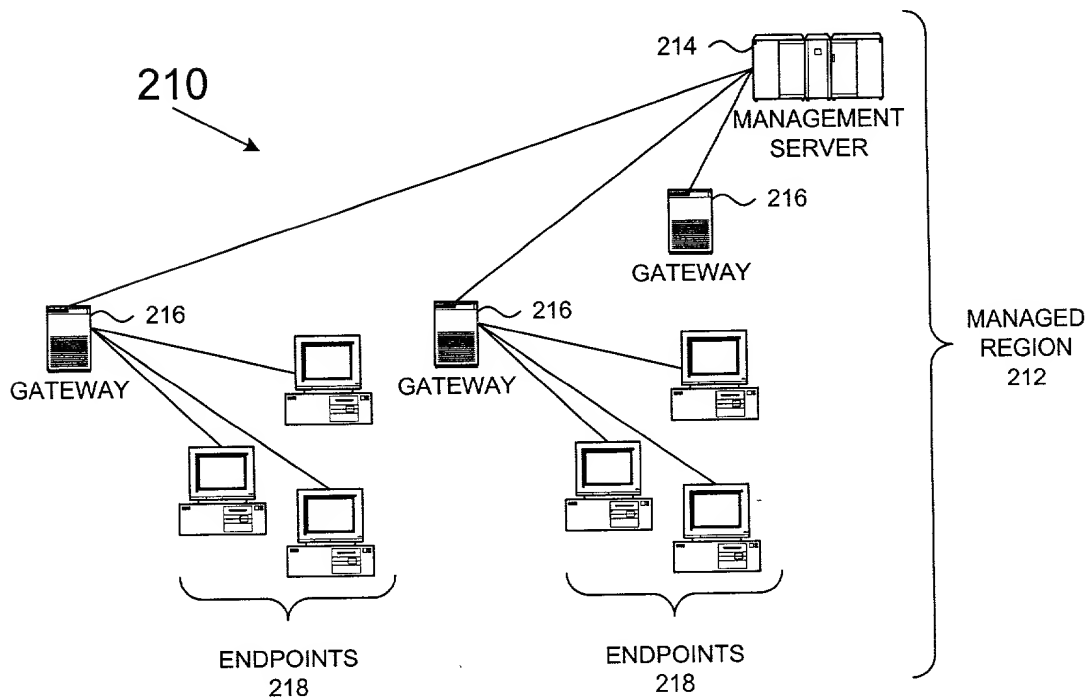


FIG. 2A

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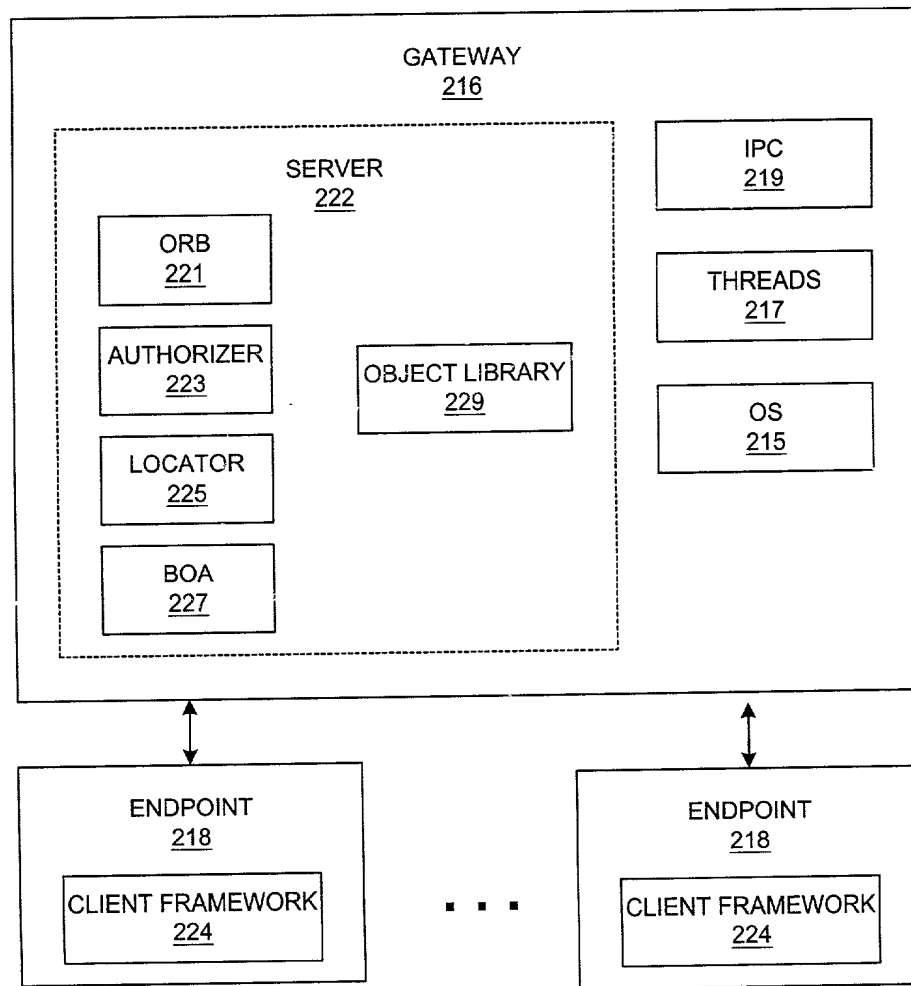


FIG. 2B

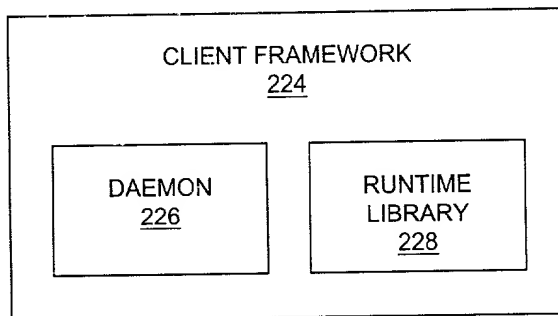


FIG. 2C

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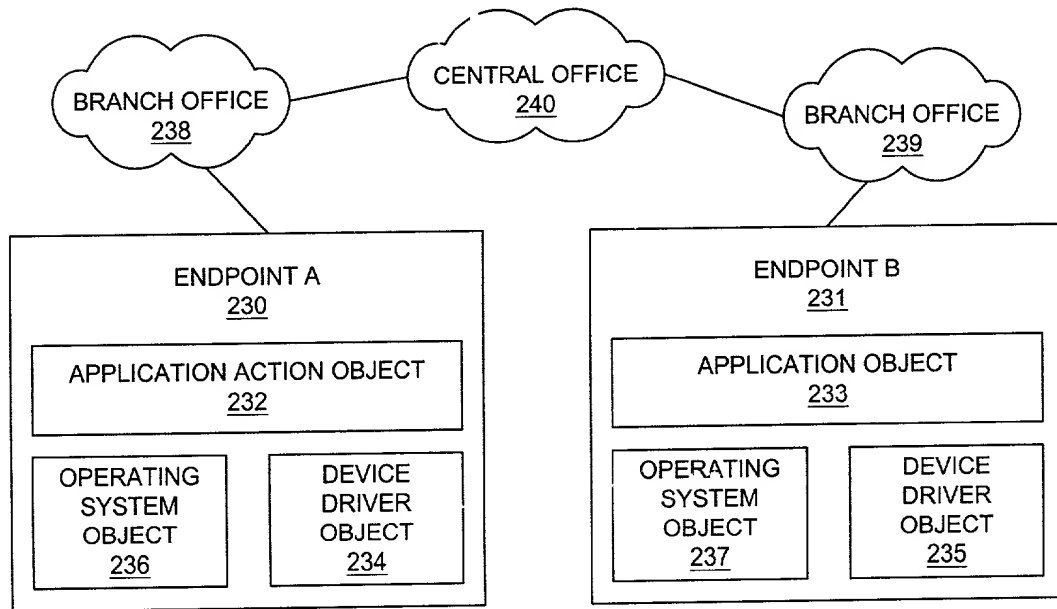


FIG. 2D

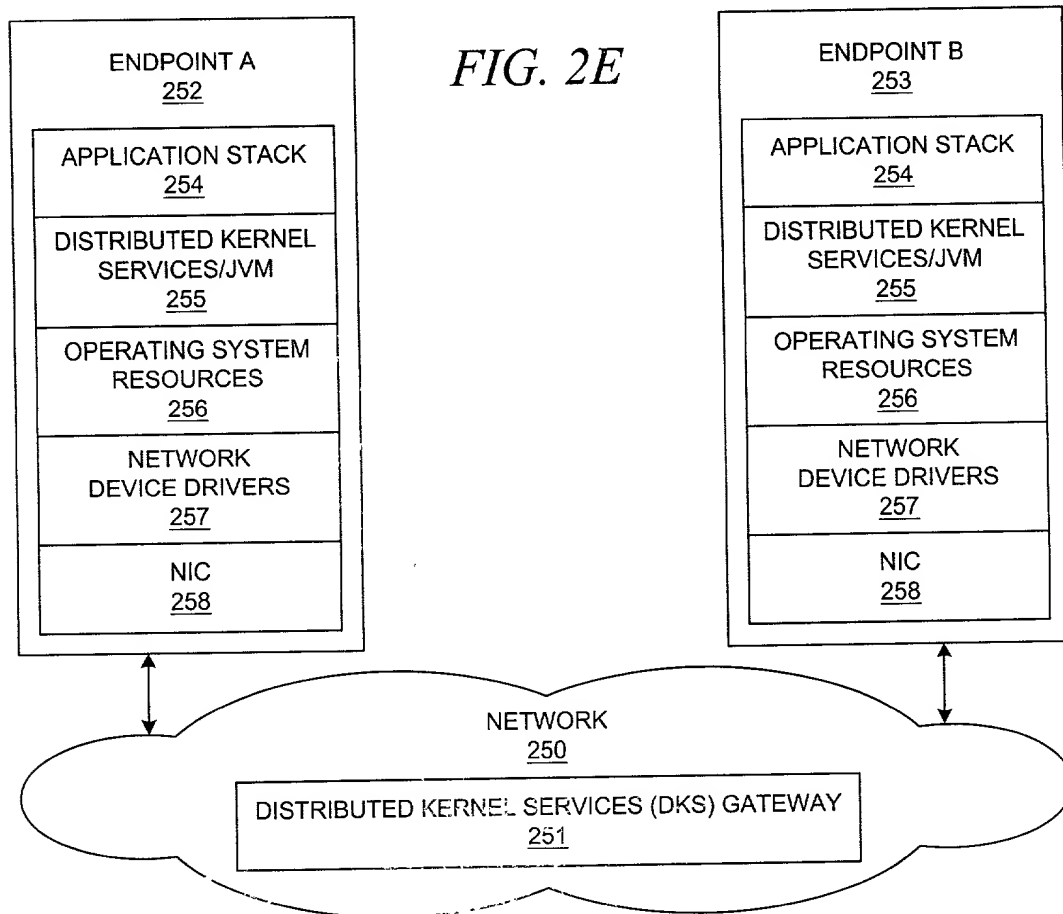


FIG. 2E

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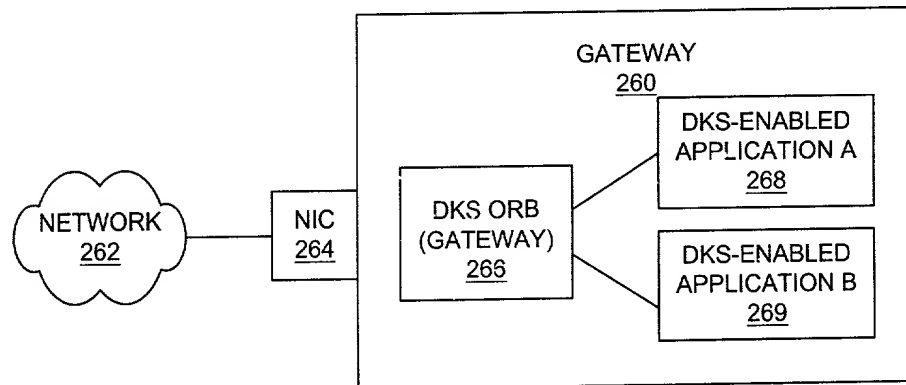


FIG. 2F

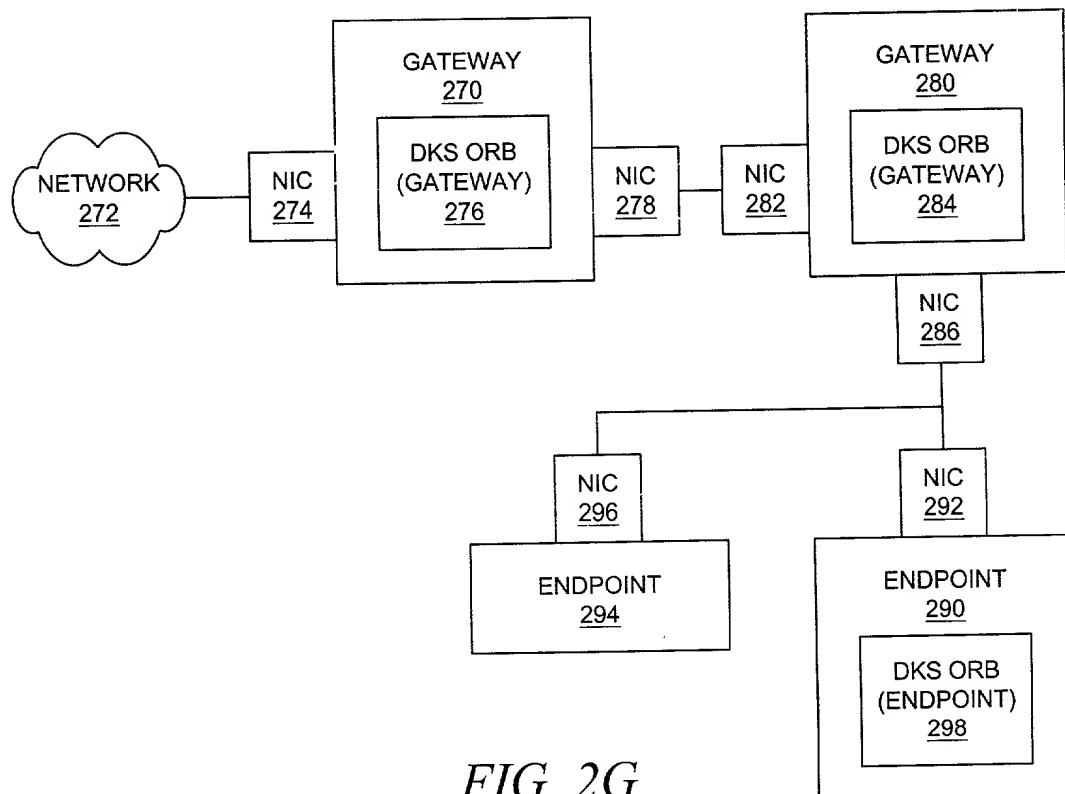


FIG. 2G

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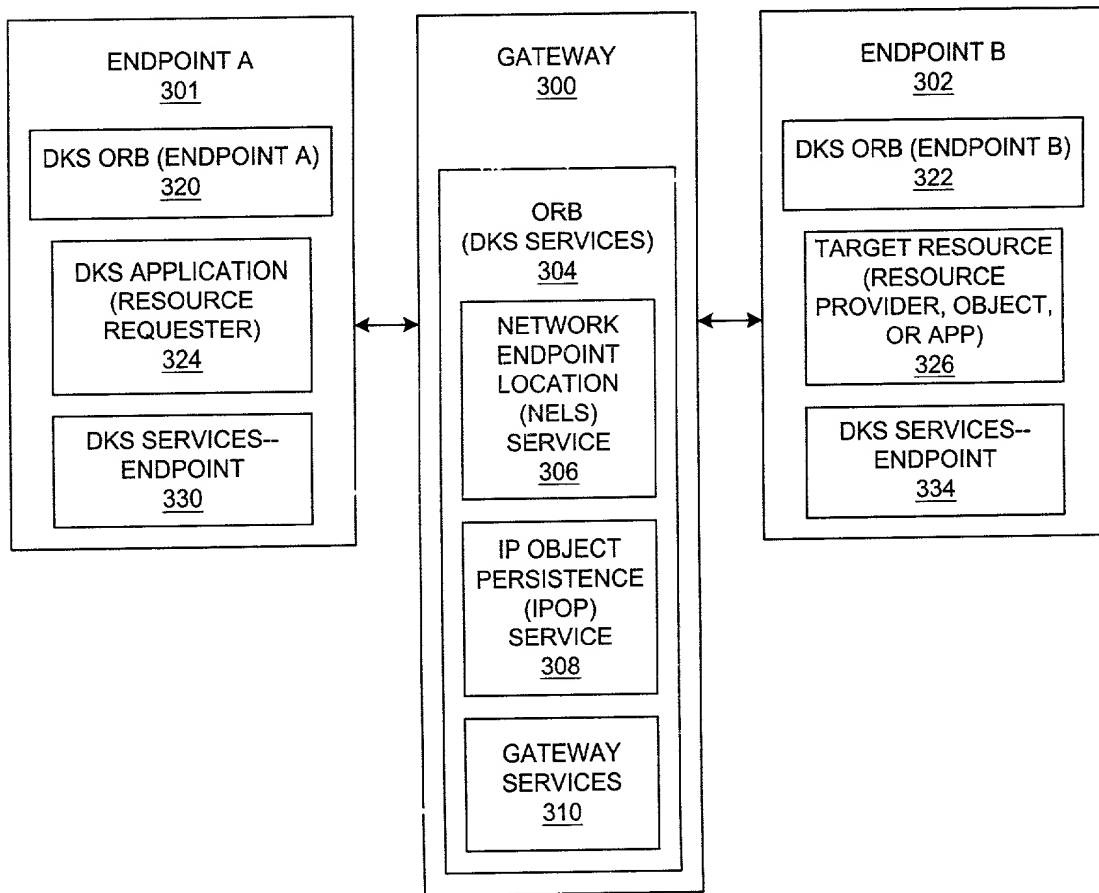


FIG. 3

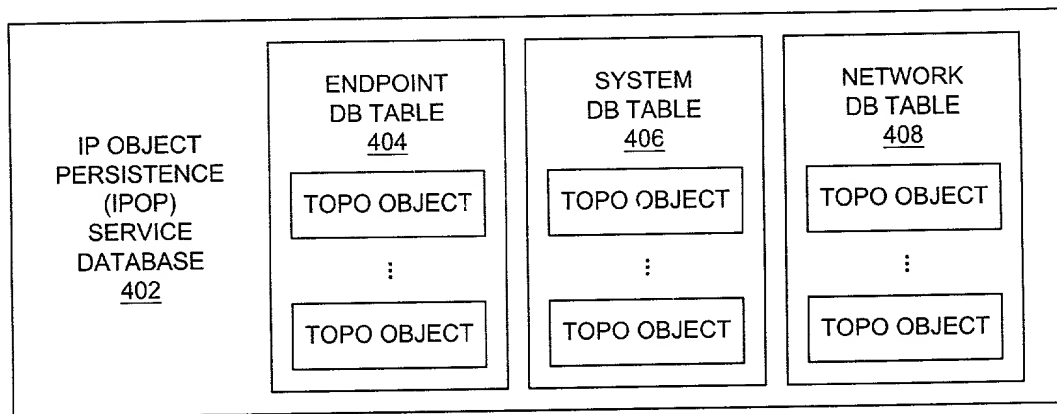
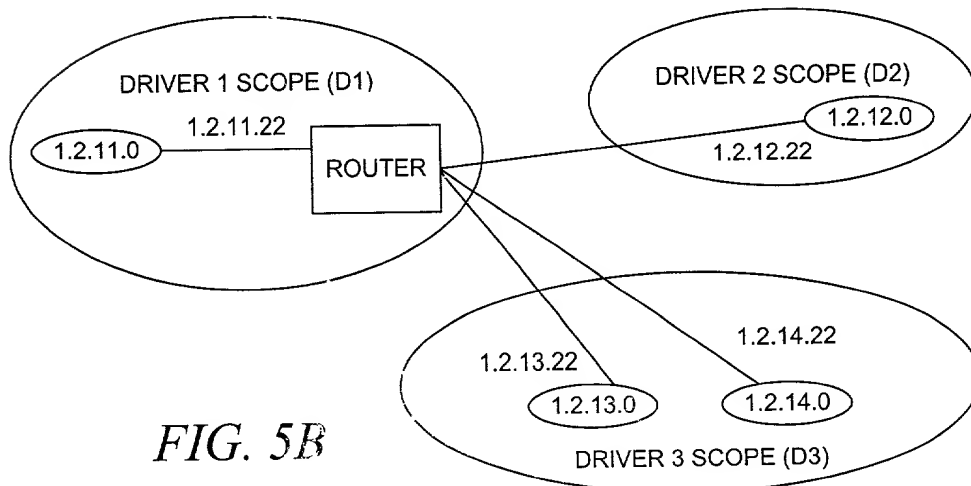
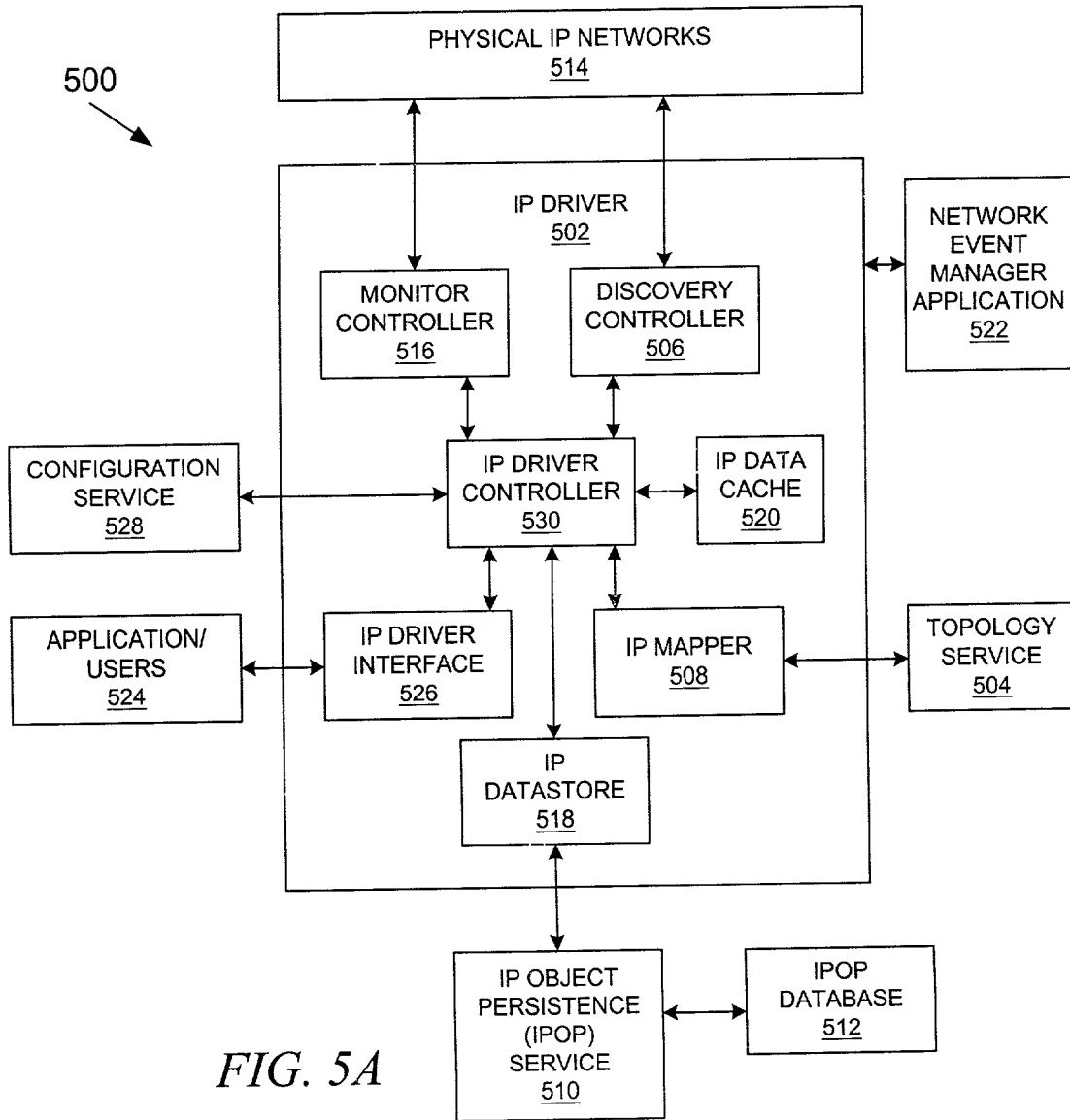


FIG. 4

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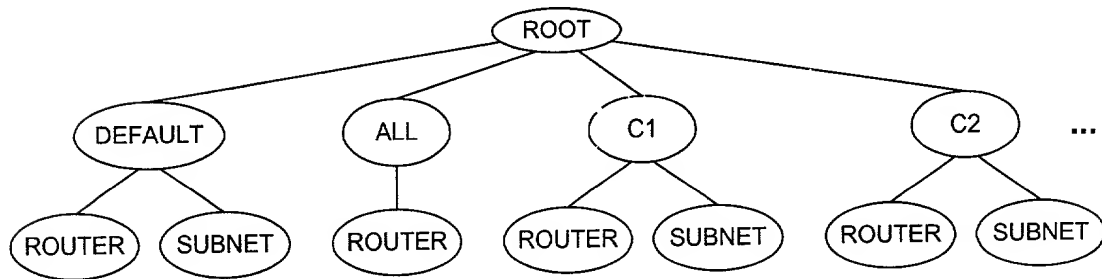


FIG. 5C

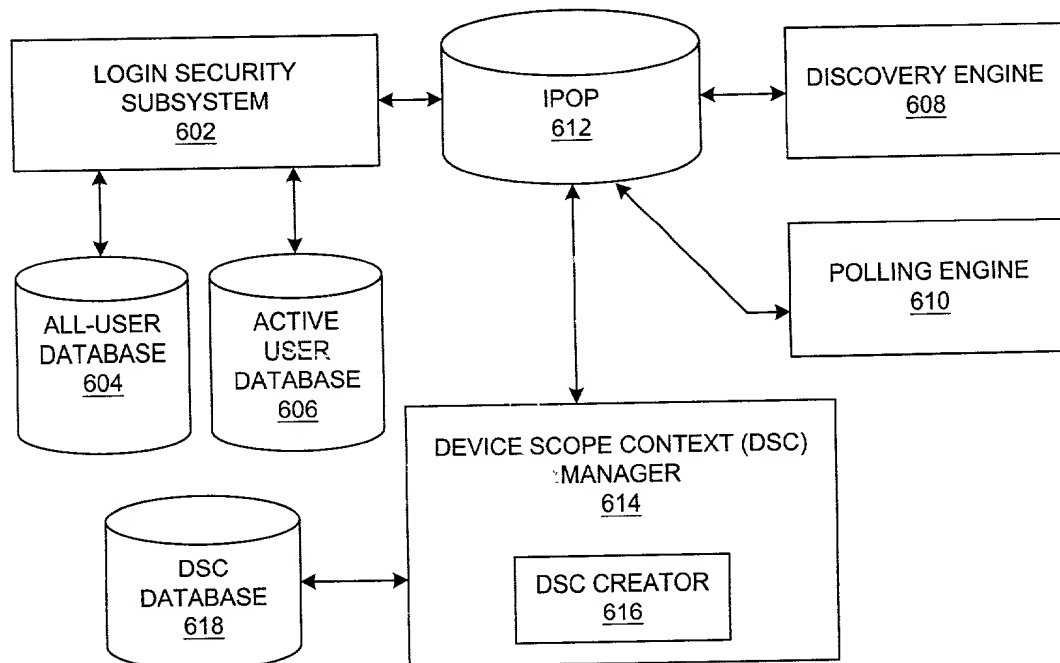


FIG. 6

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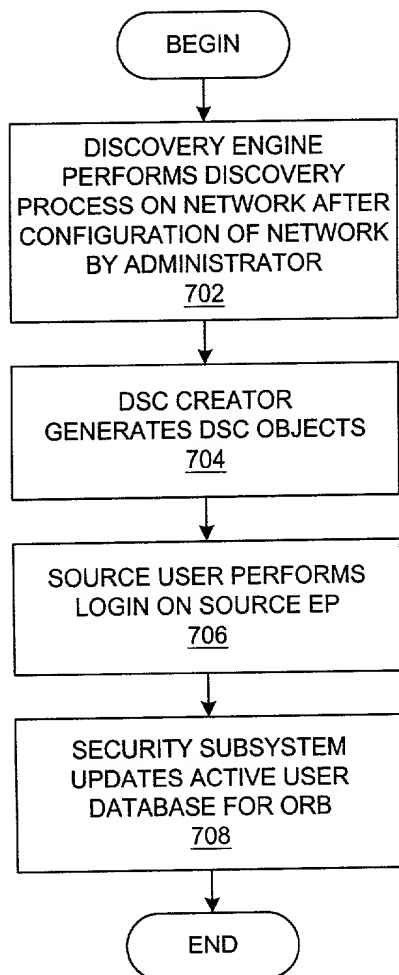


FIG. 7A

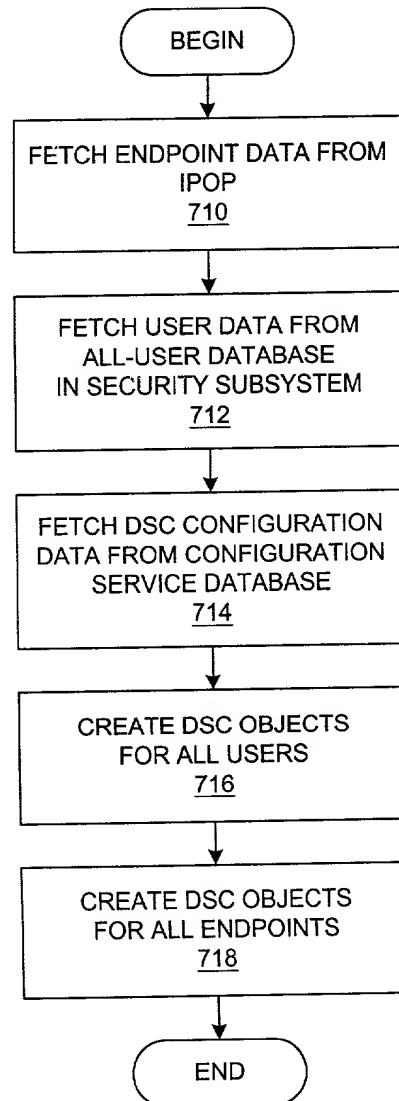


FIG. 7B

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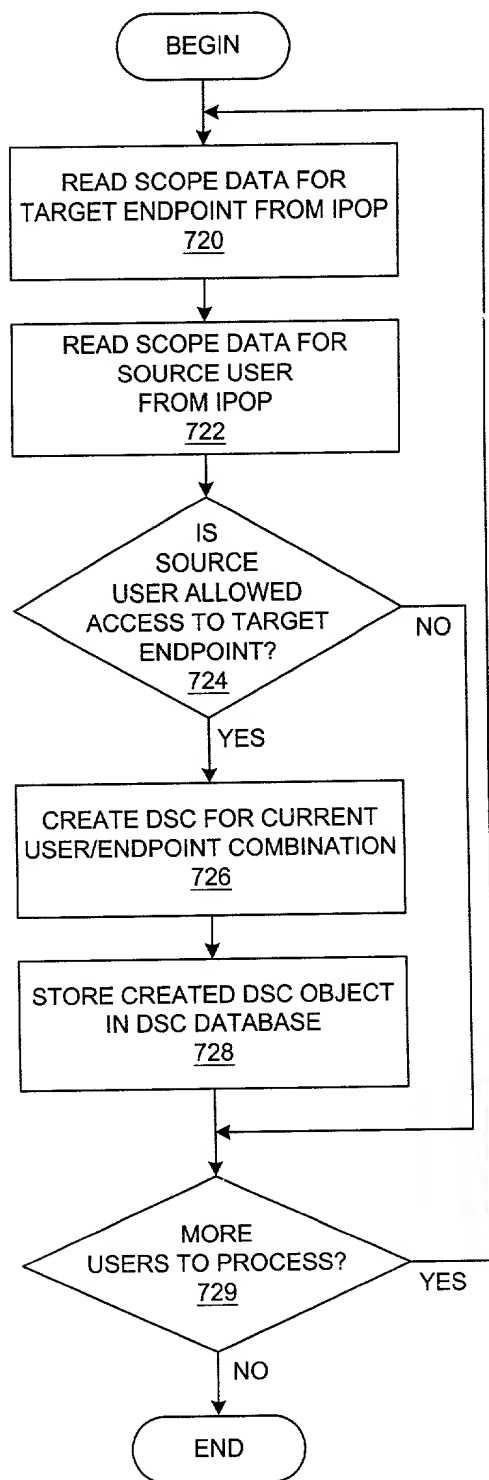


FIG. 7C

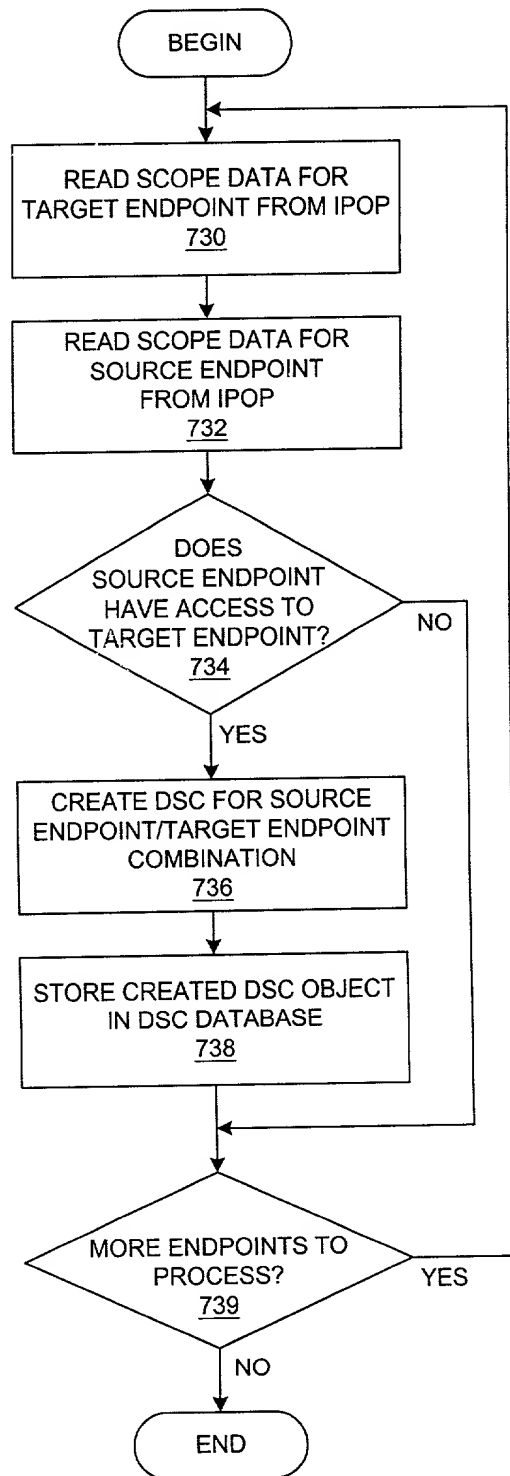


FIG. 7D

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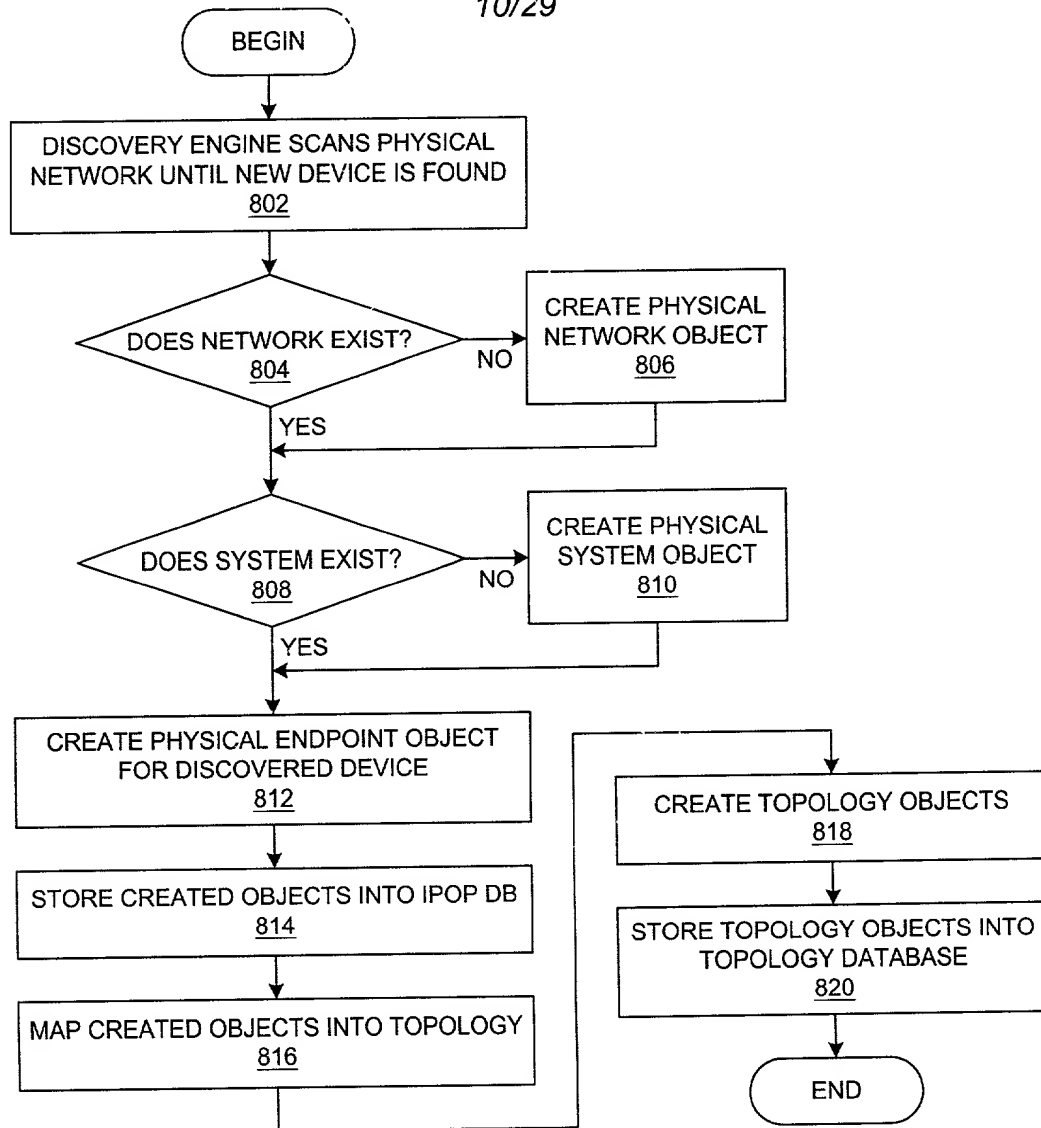


FIG. 8A

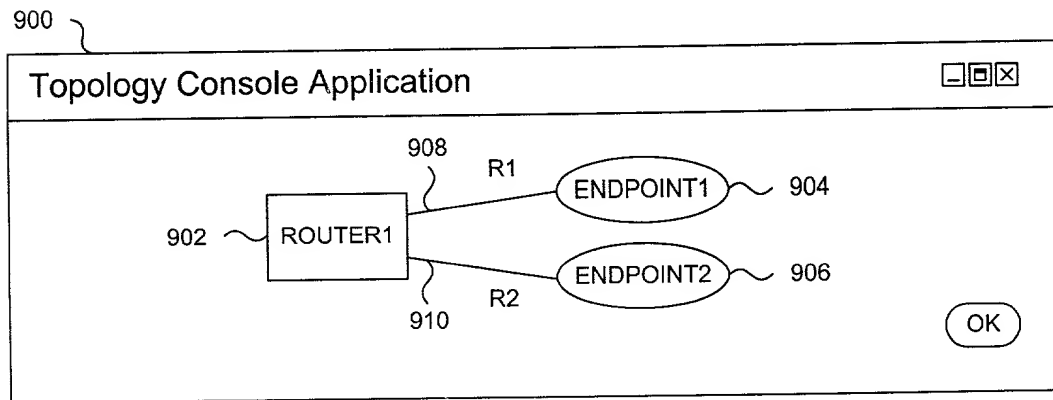


FIG. 9A

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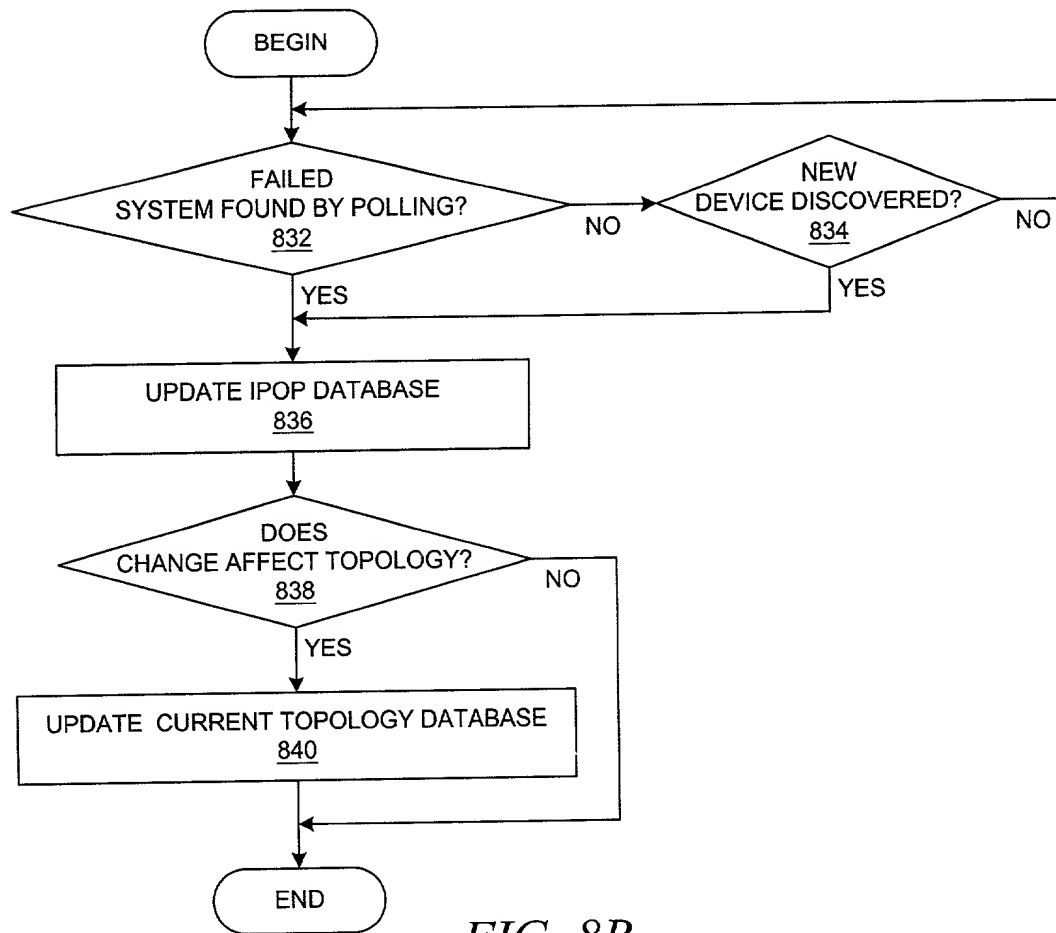


FIG. 8B

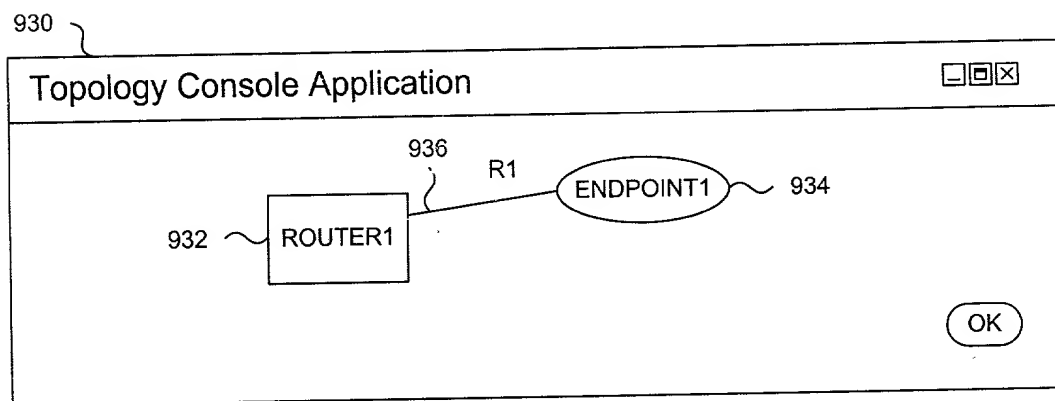


FIG. 9B

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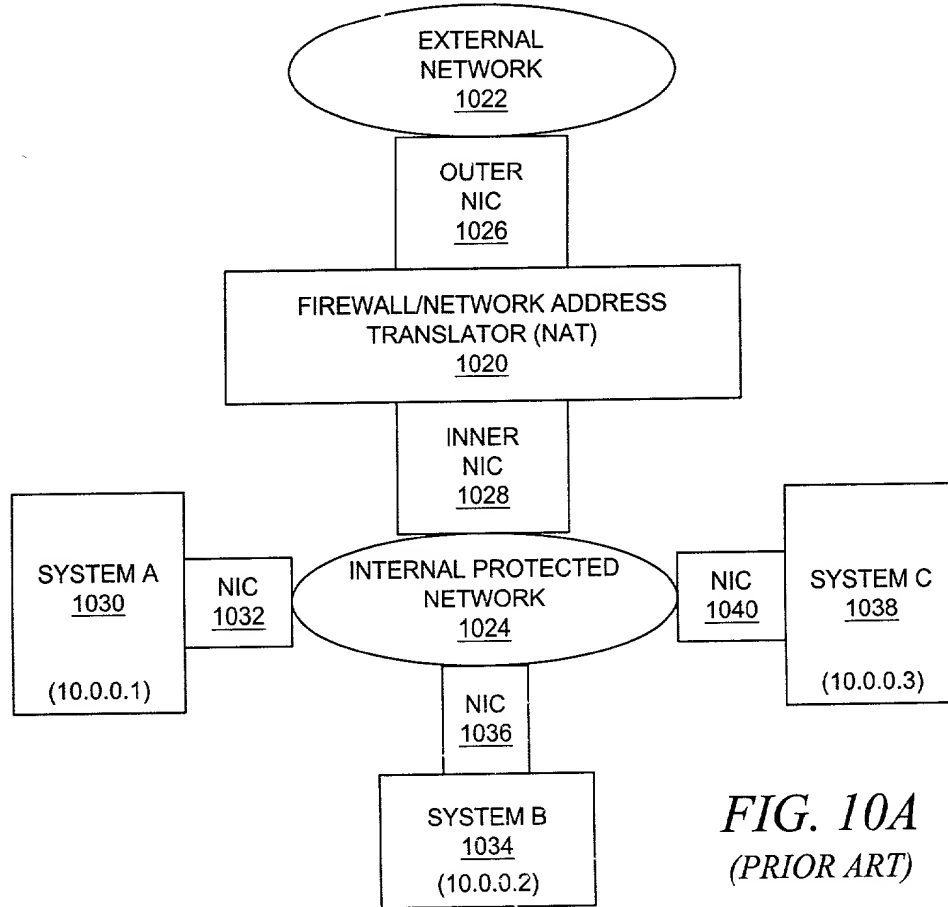


FIG. 10A
(PRIOR ART)

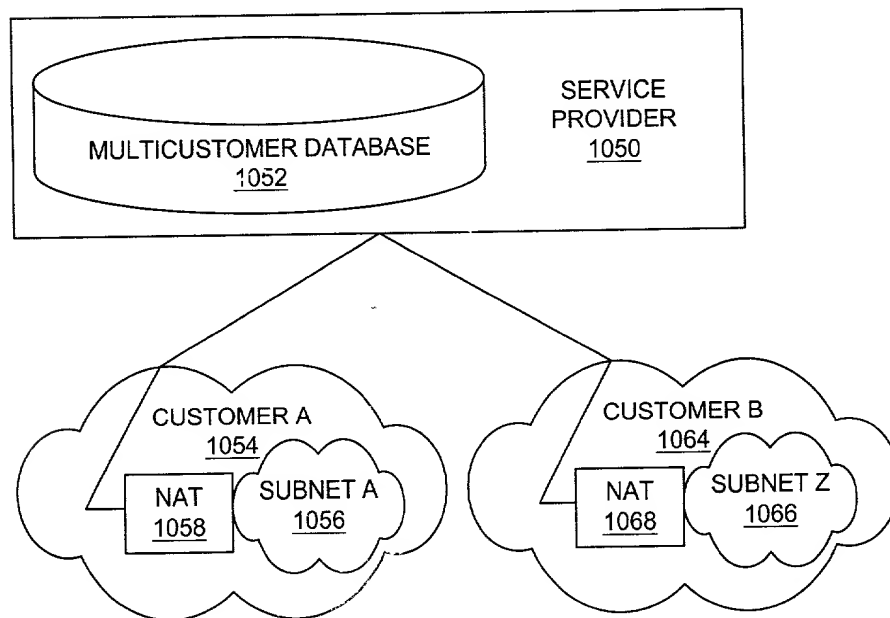


FIG. 10B

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within a network management framework

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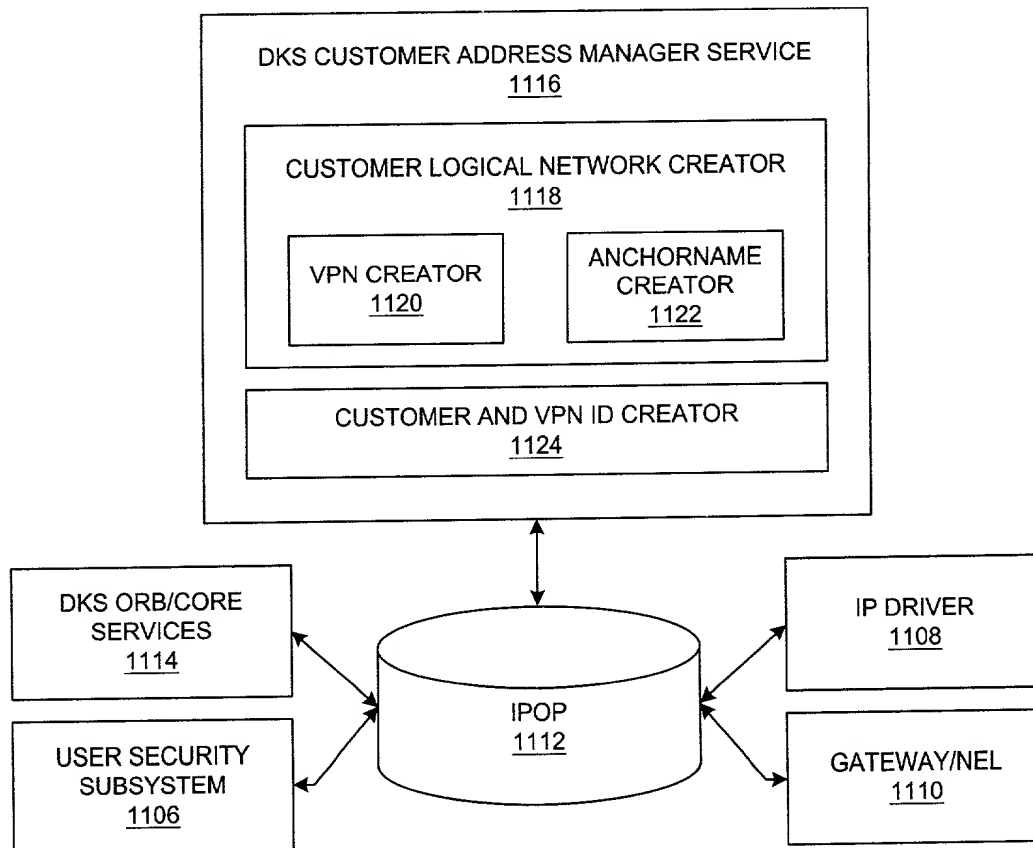


FIG. 11A

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Network Management Application

NETWORKS REQUIRING VPN CREATION--DUPLICATE ADDRESSES EXIST

PHYSICAL NETWORK ADDRESS: 10.7.205.103 ~ 1352

CUSTOMER ANCHORNAME: AUSTIN\BLDG1 ~ 1356

VPN ID: ~ 1370

PHYSICAL NETWORK ADDRESS: 10.7.205.103 ~ 1354

CUSTOMER ANCHORNAME: AUSTIN\BLDG2 ~ 1358

VPN ID: ~ 1372

1378 ☒ CHANGE VPN ID FOR ENTIRE SCOPE

SET ~ 1374 1376 ~ CLEAR

FIG. 13

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Public Class IPActionObject {

Endpoint sourceEP;
Endpoint targetEP;

// CONSTRUCTOR

IPActionObject(Endpoint targetEP, Endpoint sourceEP) {

.
.
.
}

VOID performAction() // EXECUTES ACTION METHOD

.
.
.
}

FIG. 11B

Public Class Endpoint {

// public variables

long EObjectID; // ID to object (both private and public network addresses)
InetAddress EIPAddress; // physical network address (private or public)
long EPVPN; // virtual private network ID

//get/set of variables

public long getObjectID() { ... }
public InetAddress getAddress() { ... }
public long getVPN() { ... }

}

FIG. 11C

Public Class EndpointCustomer extends Endpoint {

public getVPNGW() {

//gets the only gateway which has access to a particular private network

.
.
.
}

//private variables only set/accessed by EP creator IPOP

long customerHashNumber;
String customerName;
String customerAnchorPath;
Long objectloFPrivateGatewayRoute

}

FIG. 11D

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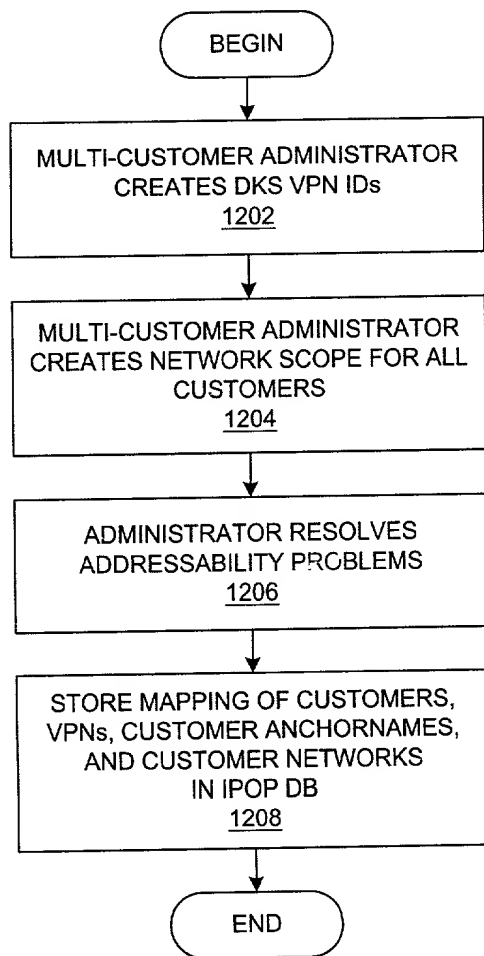


FIG. 12A

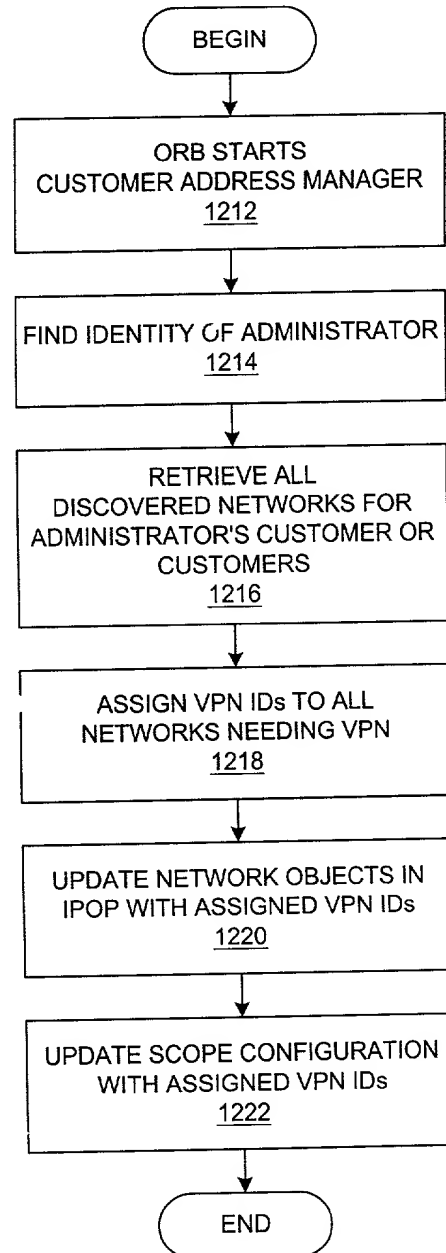


FIG. 12B

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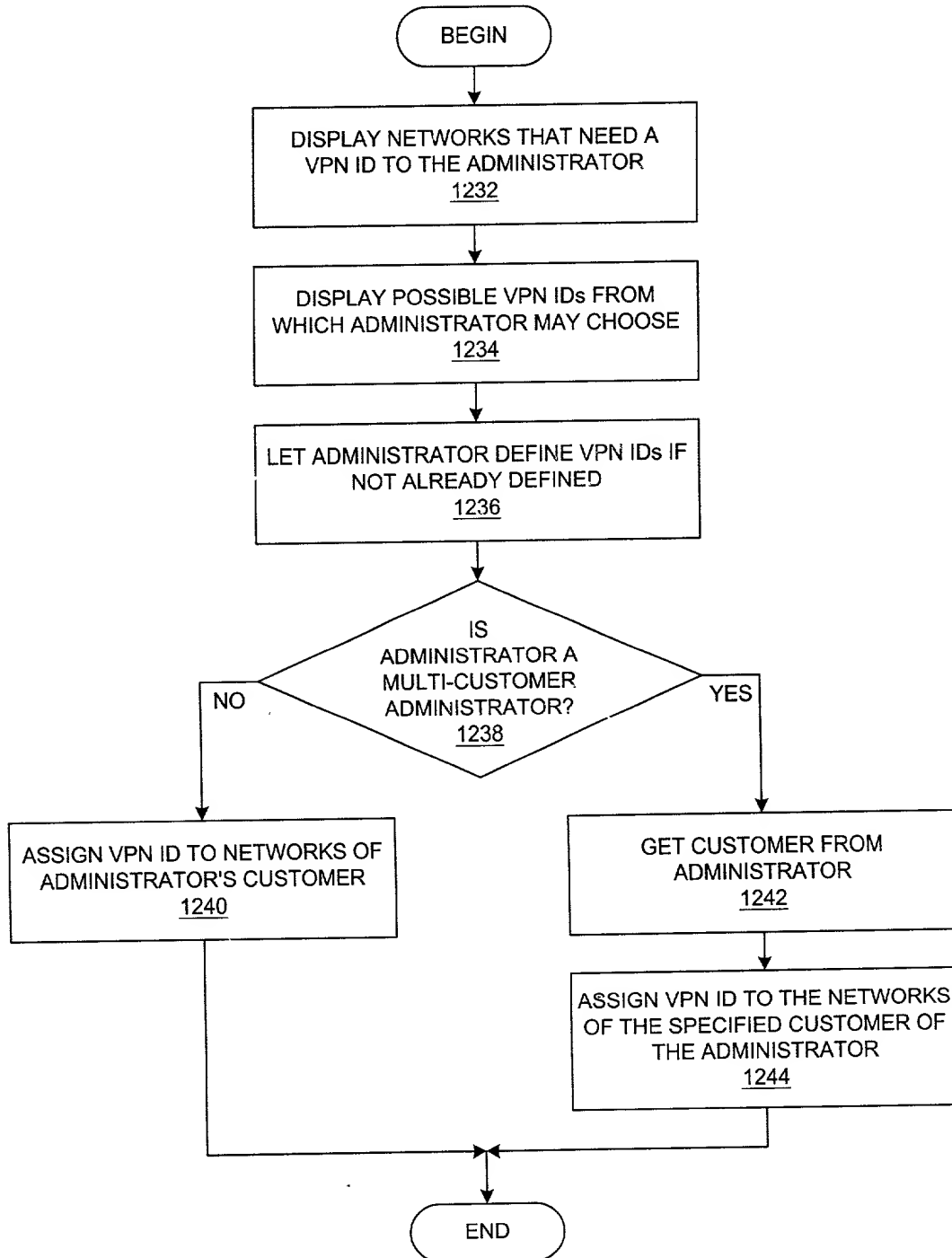


FIG. 12C

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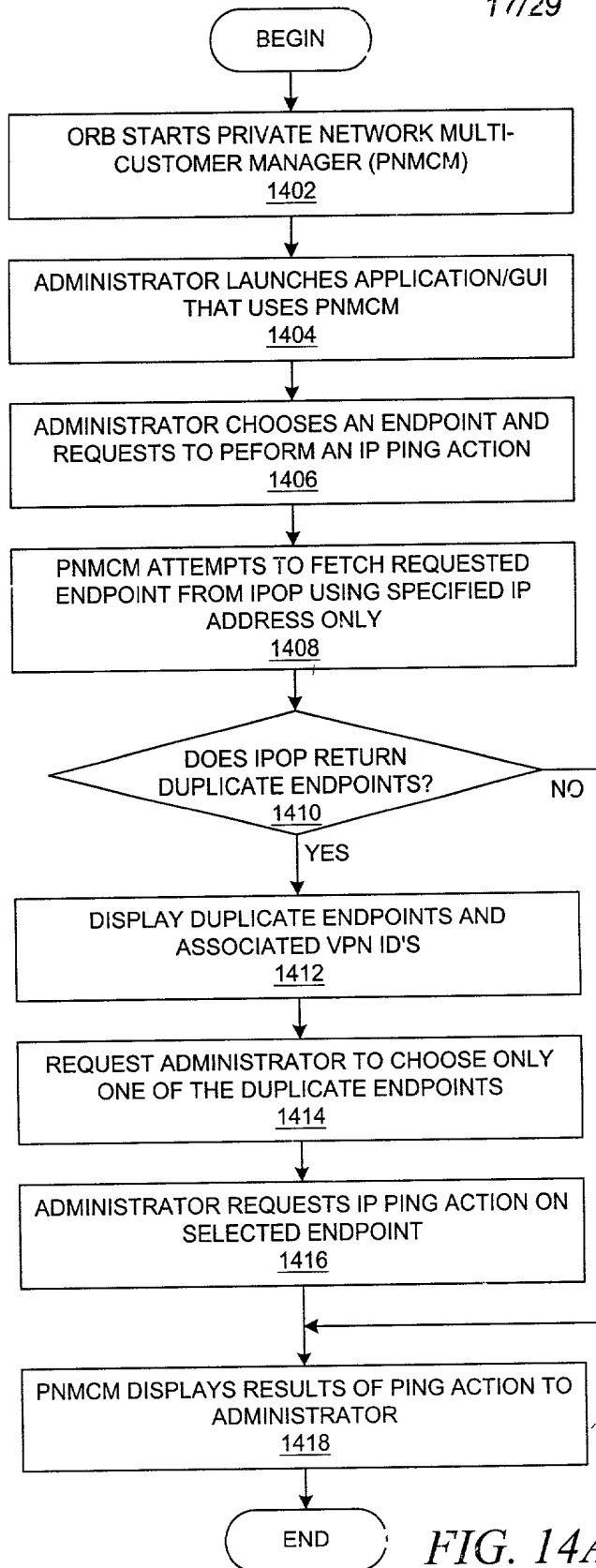


FIG. 14A

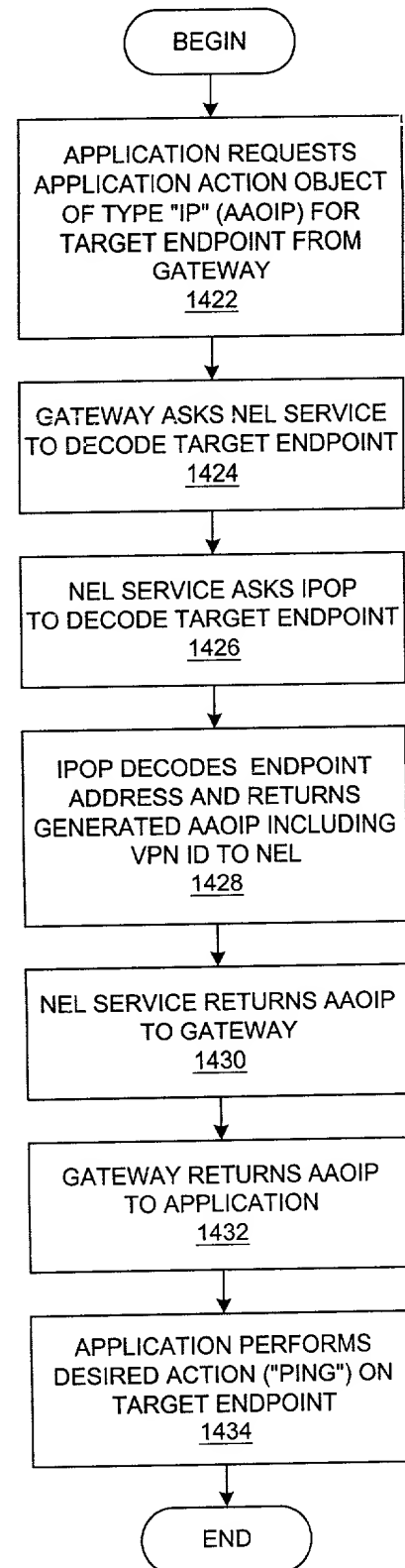


FIG. 14B

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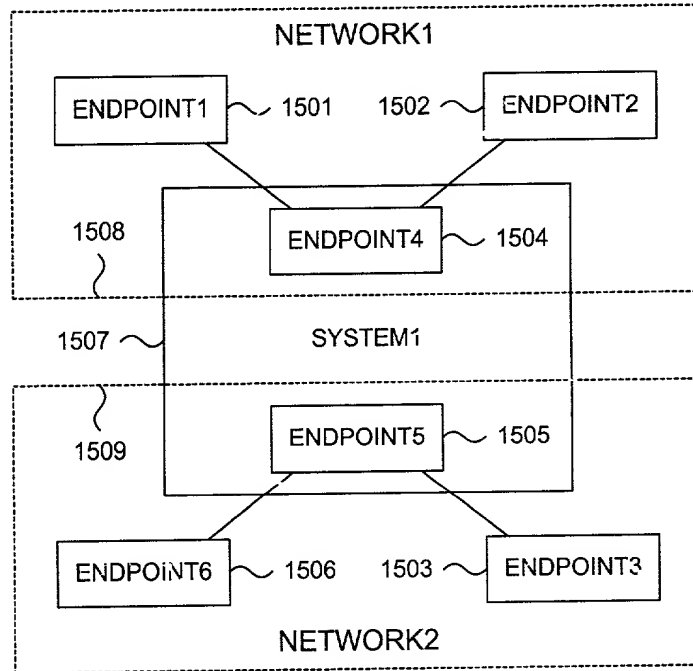
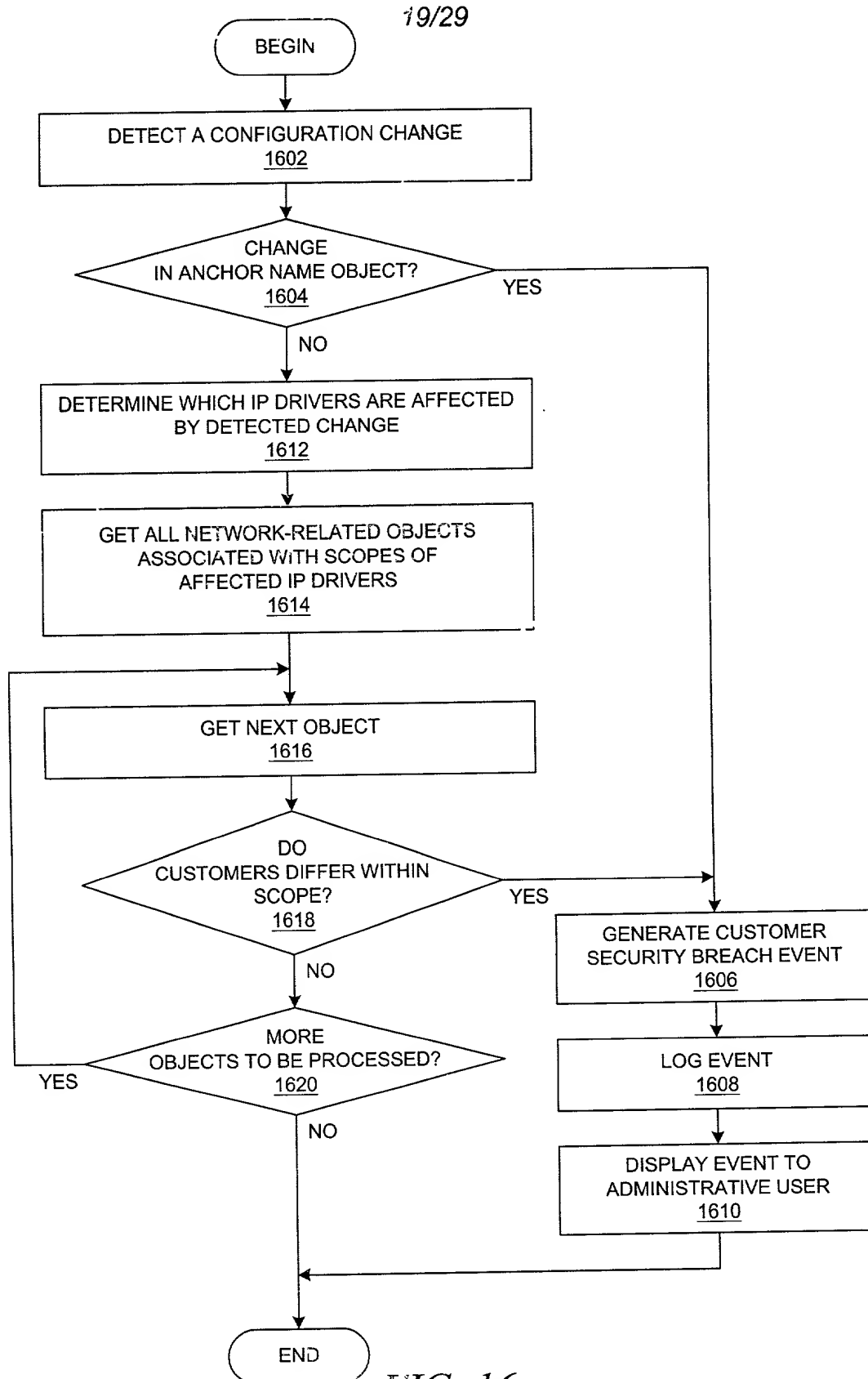


FIG. 15

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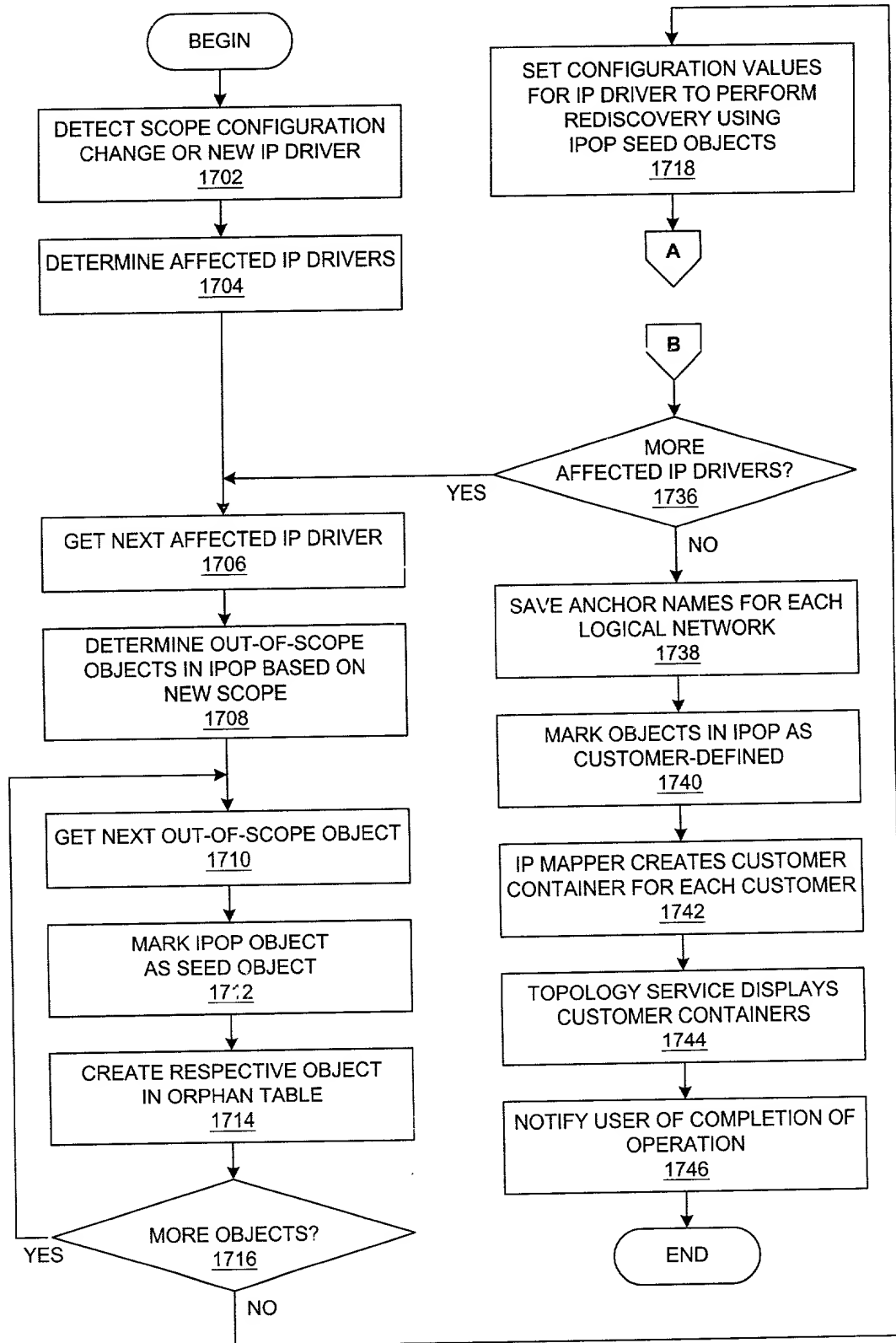


FIG. 17A

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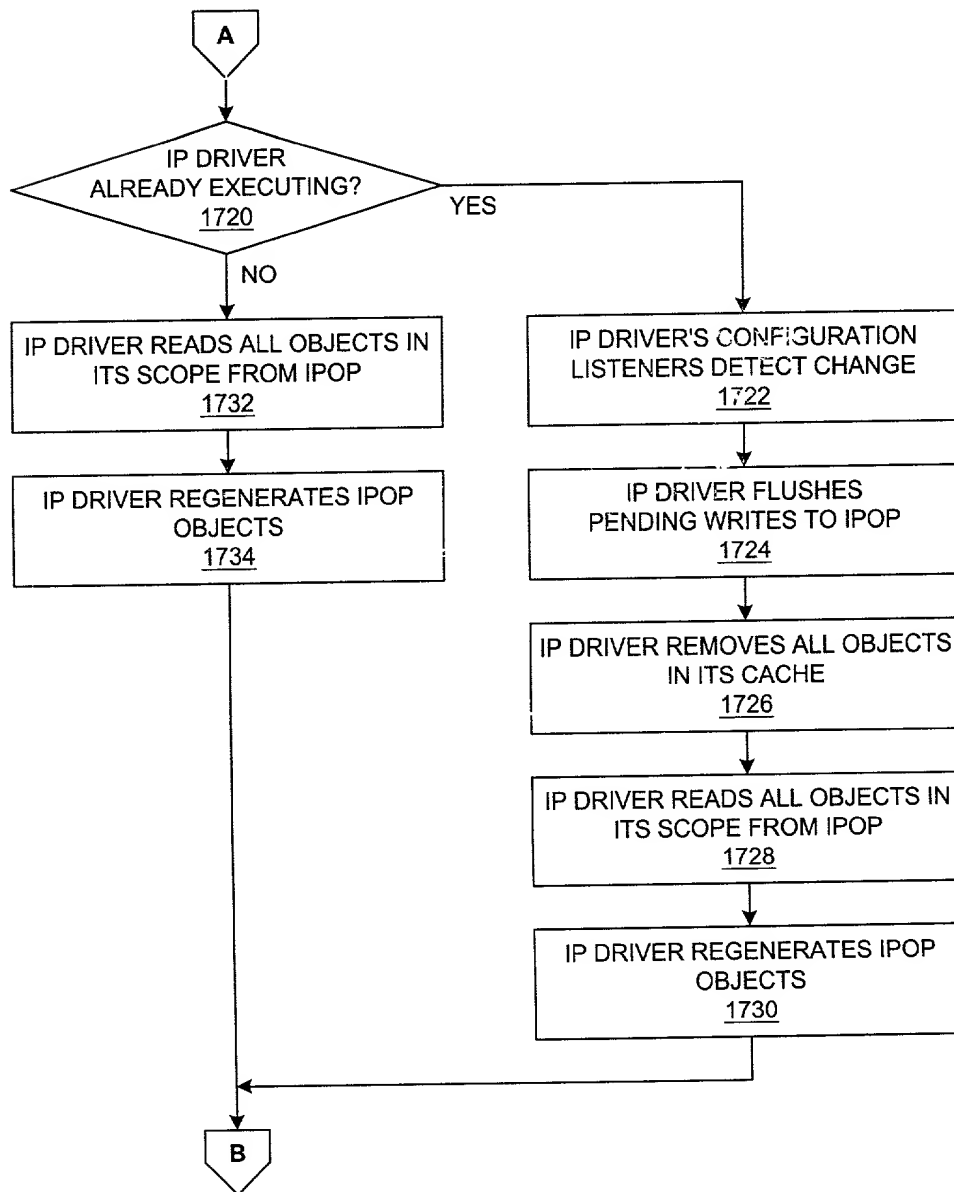


FIG. 17B

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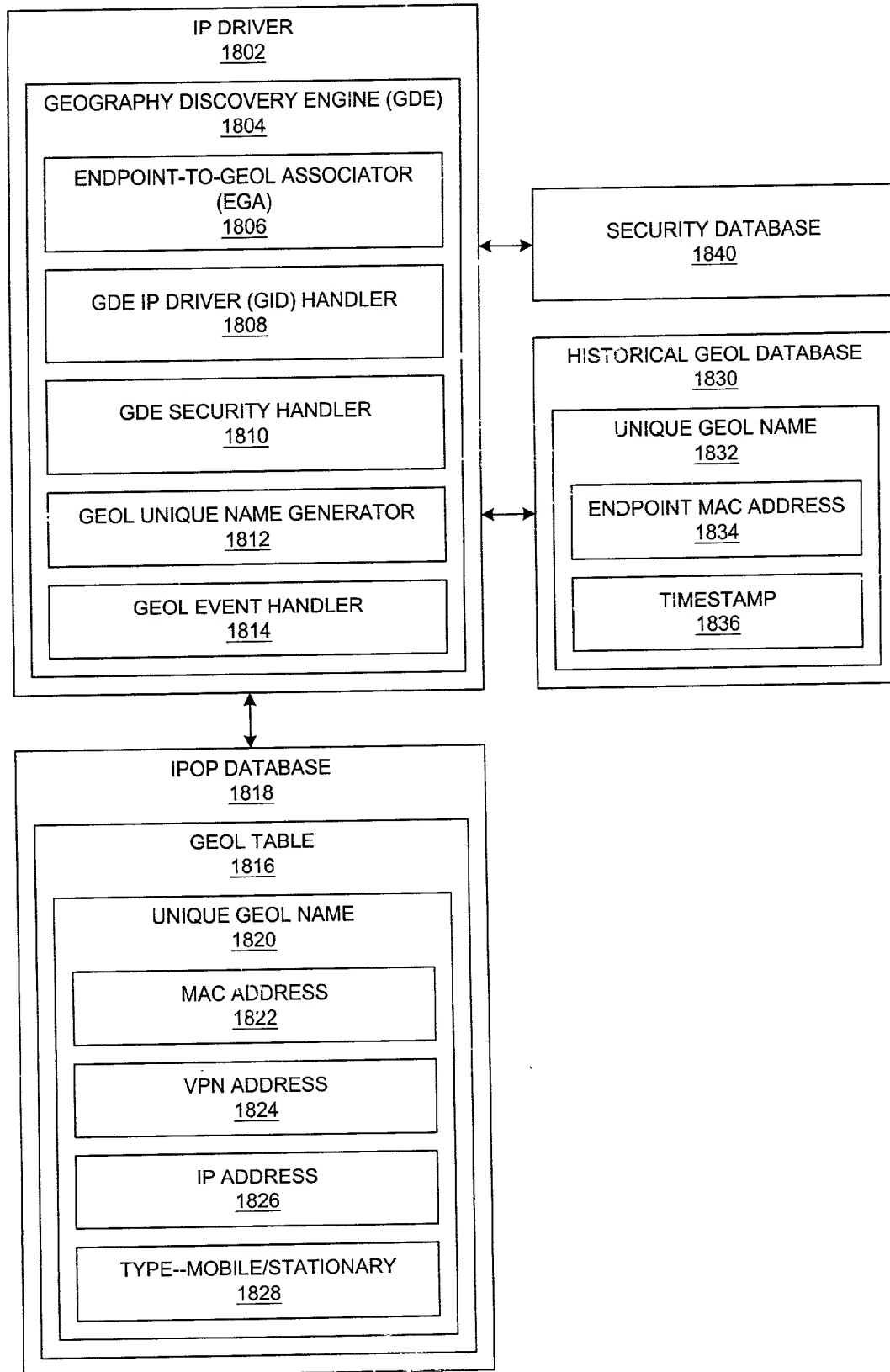


FIG. 18

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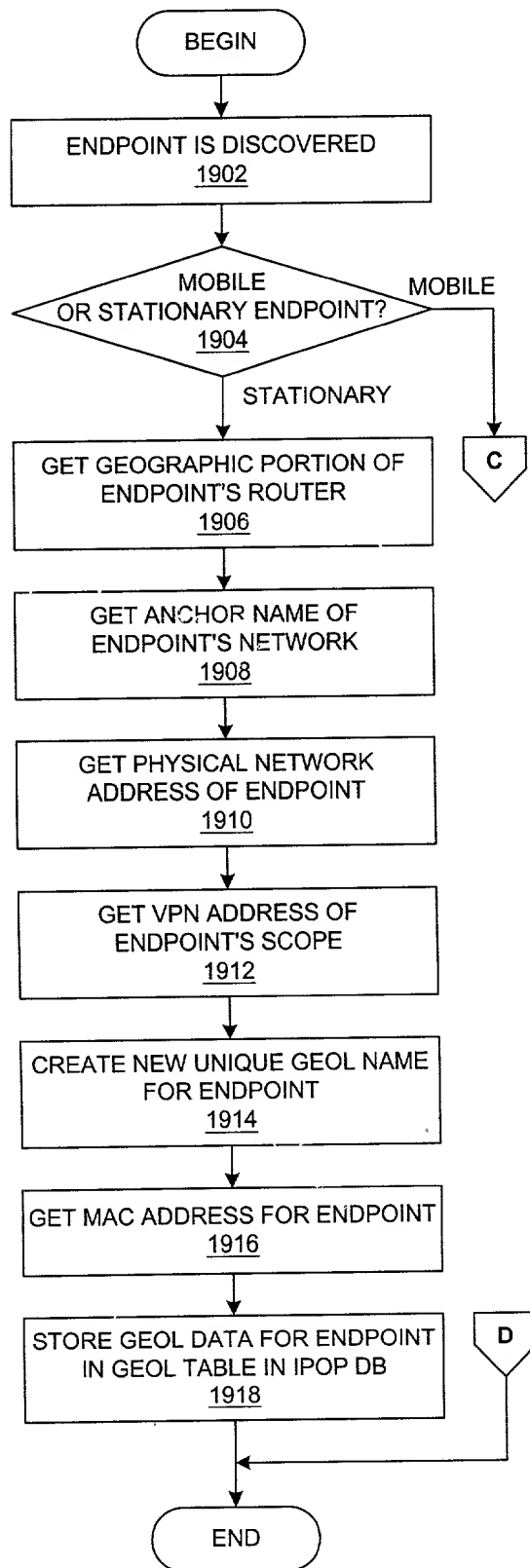


FIG. 19A

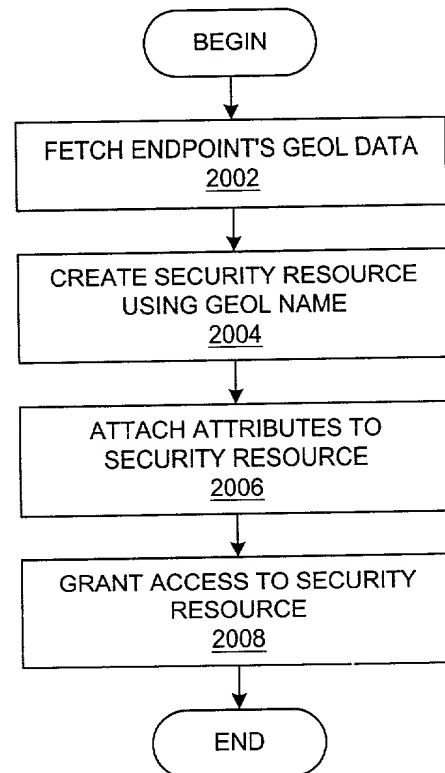


FIG. 20

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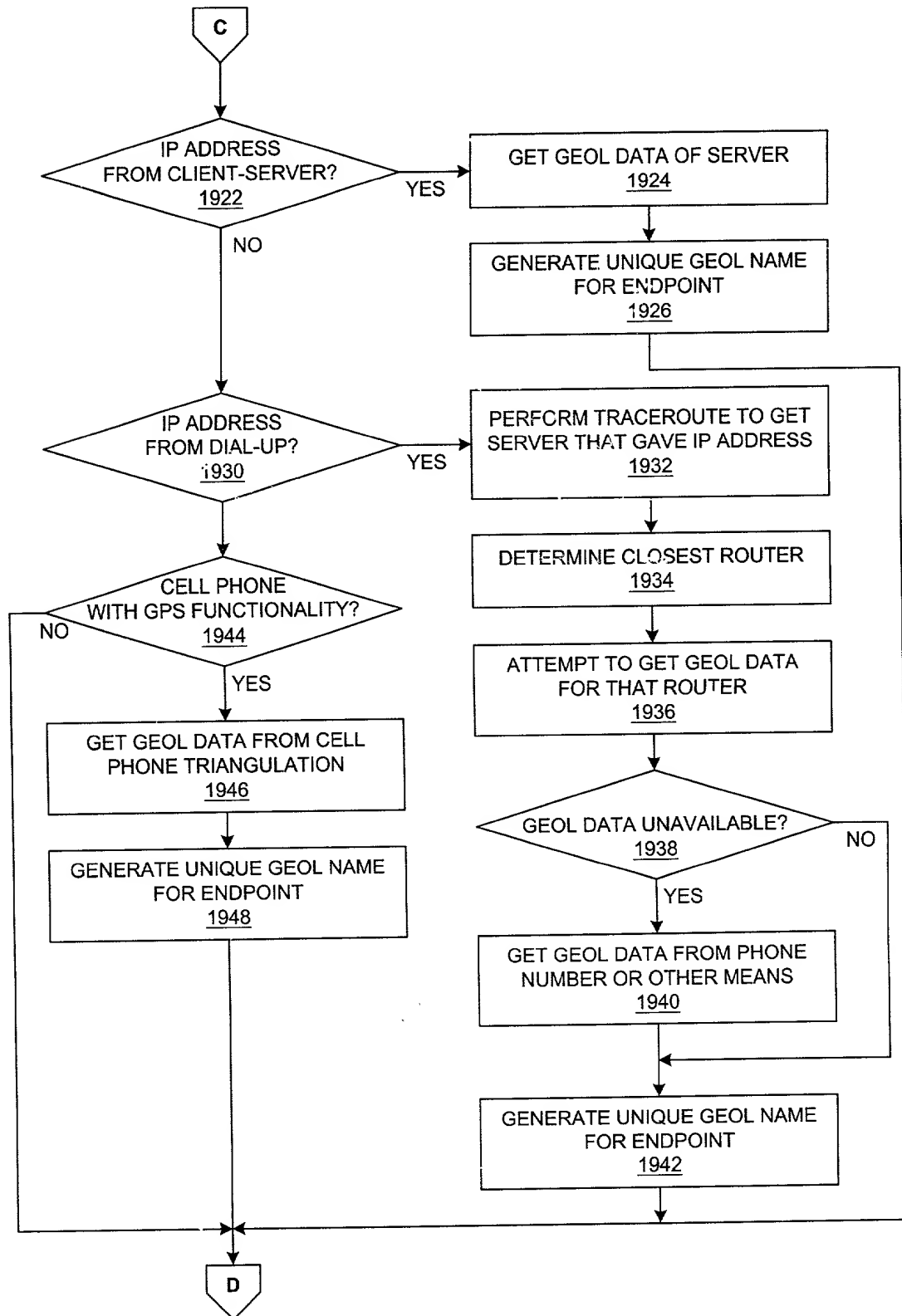


FIG. 19B

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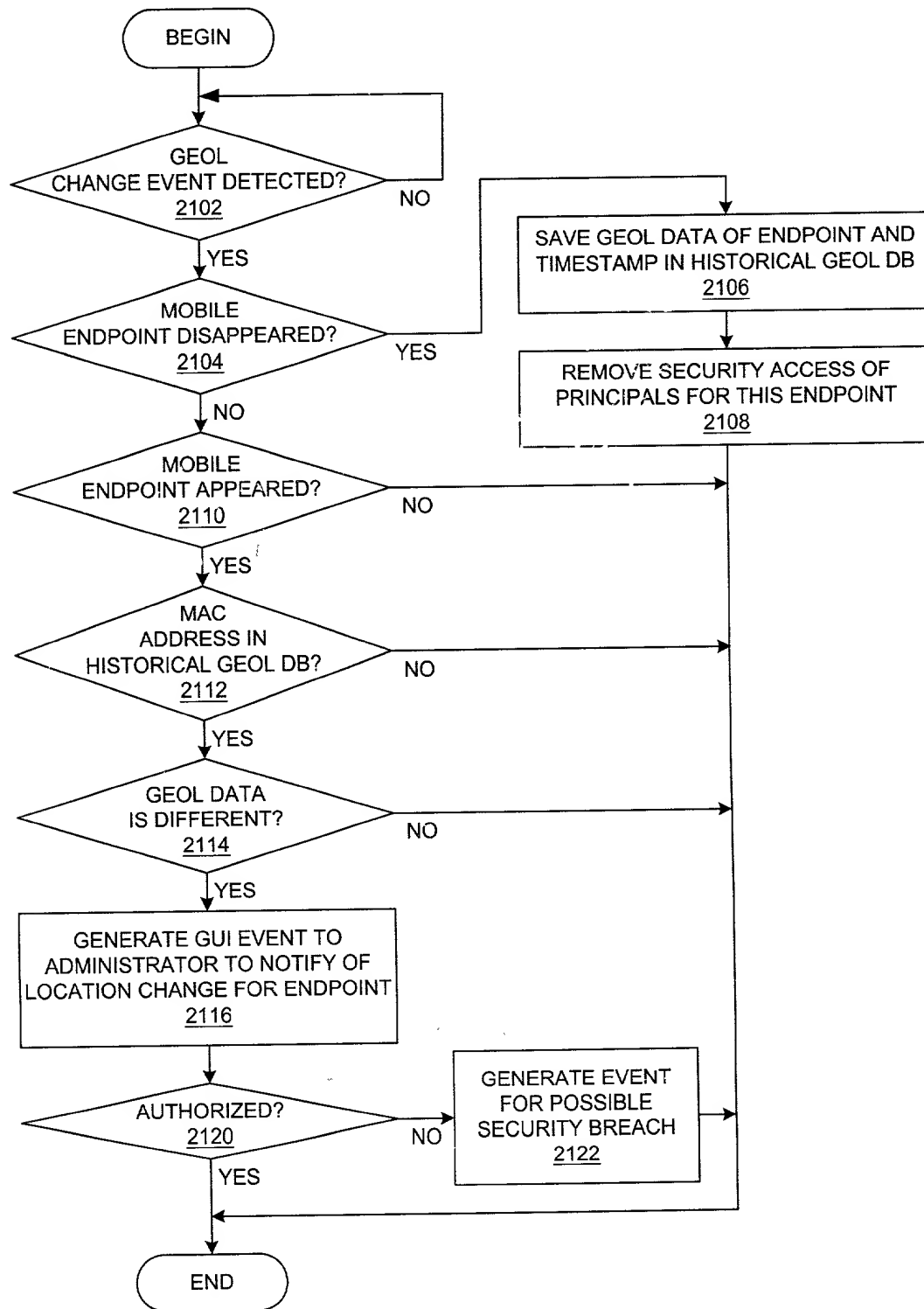


FIG. 21

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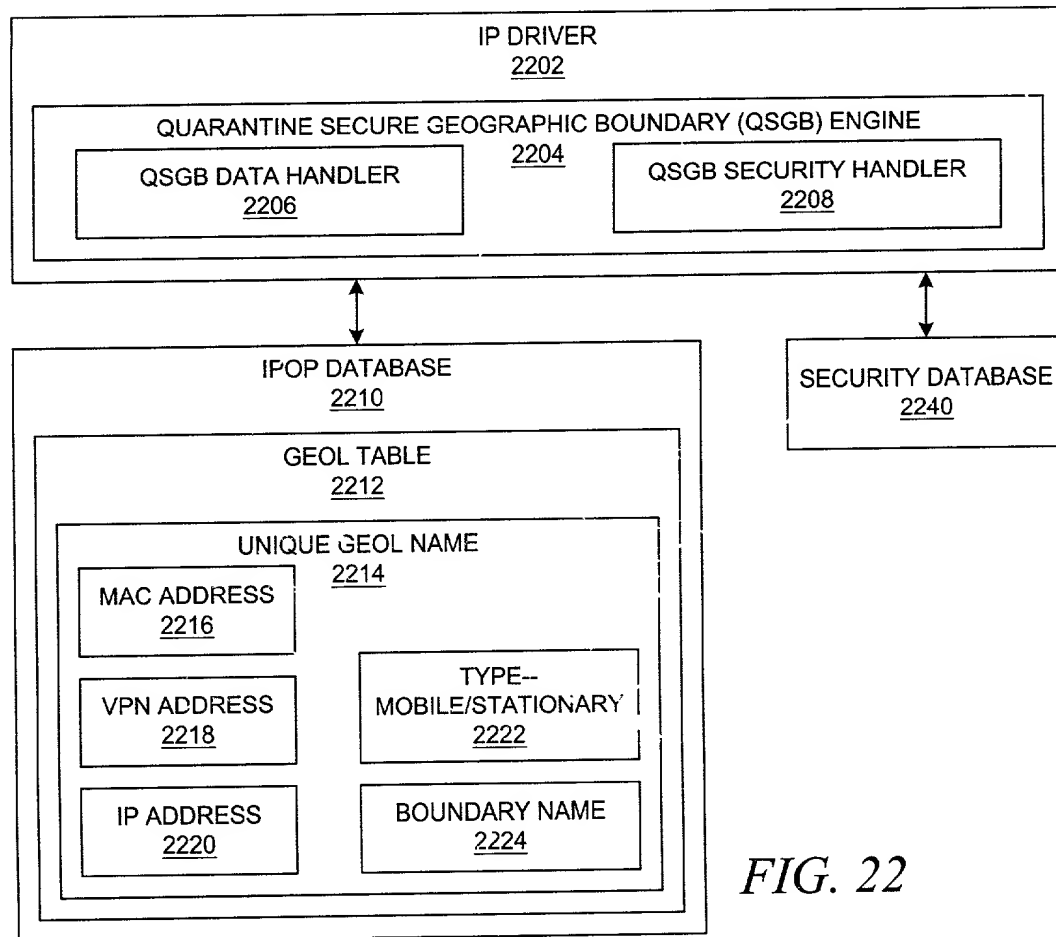


FIG. 22

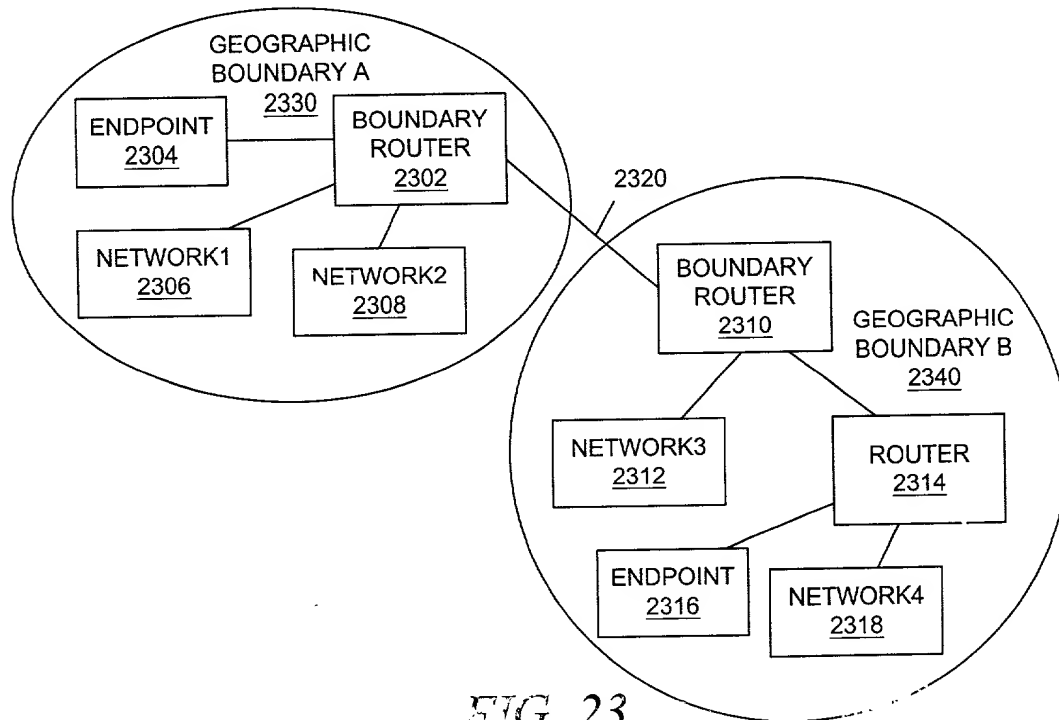


FIG. 23

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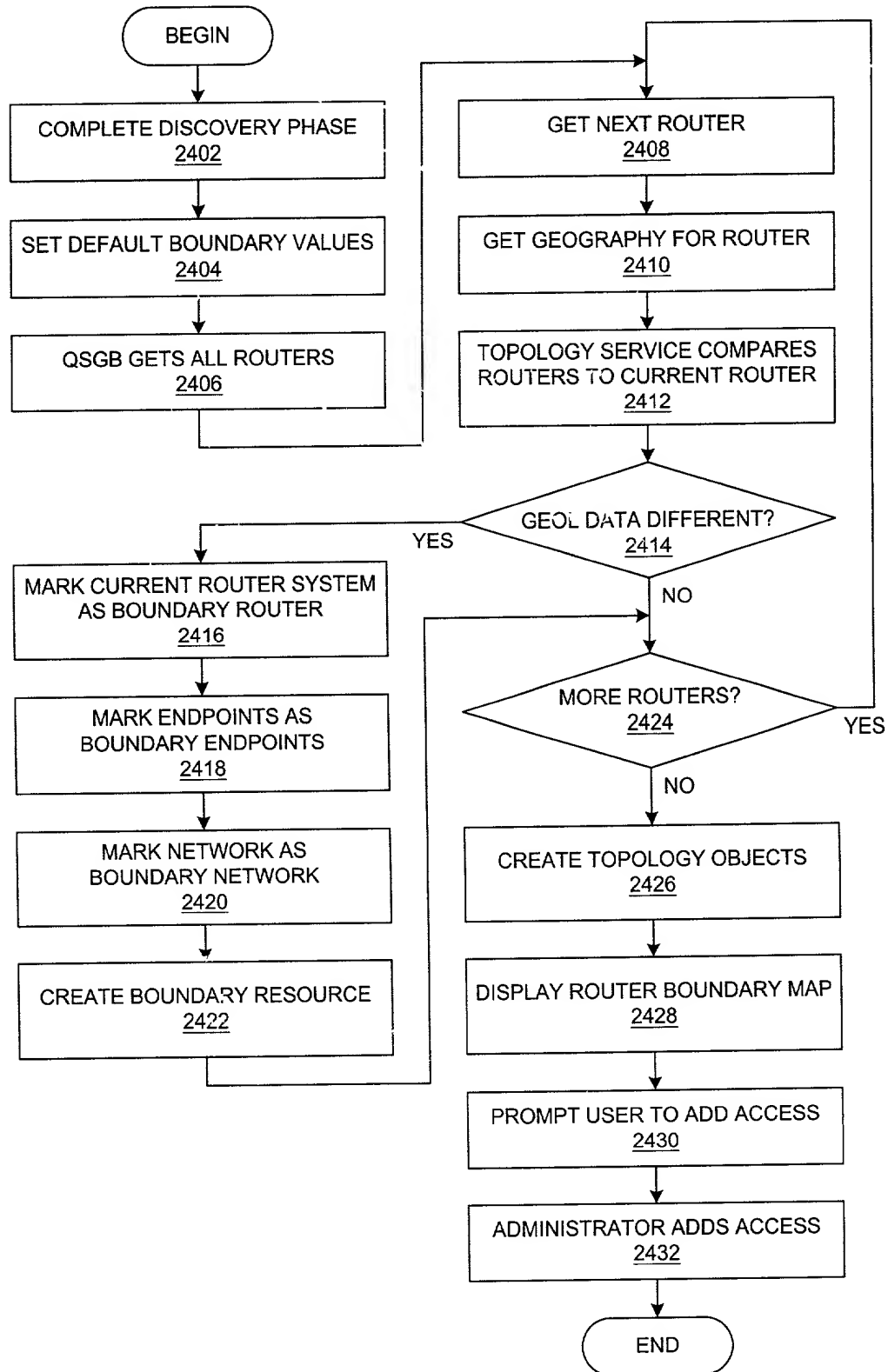


FIG. 24

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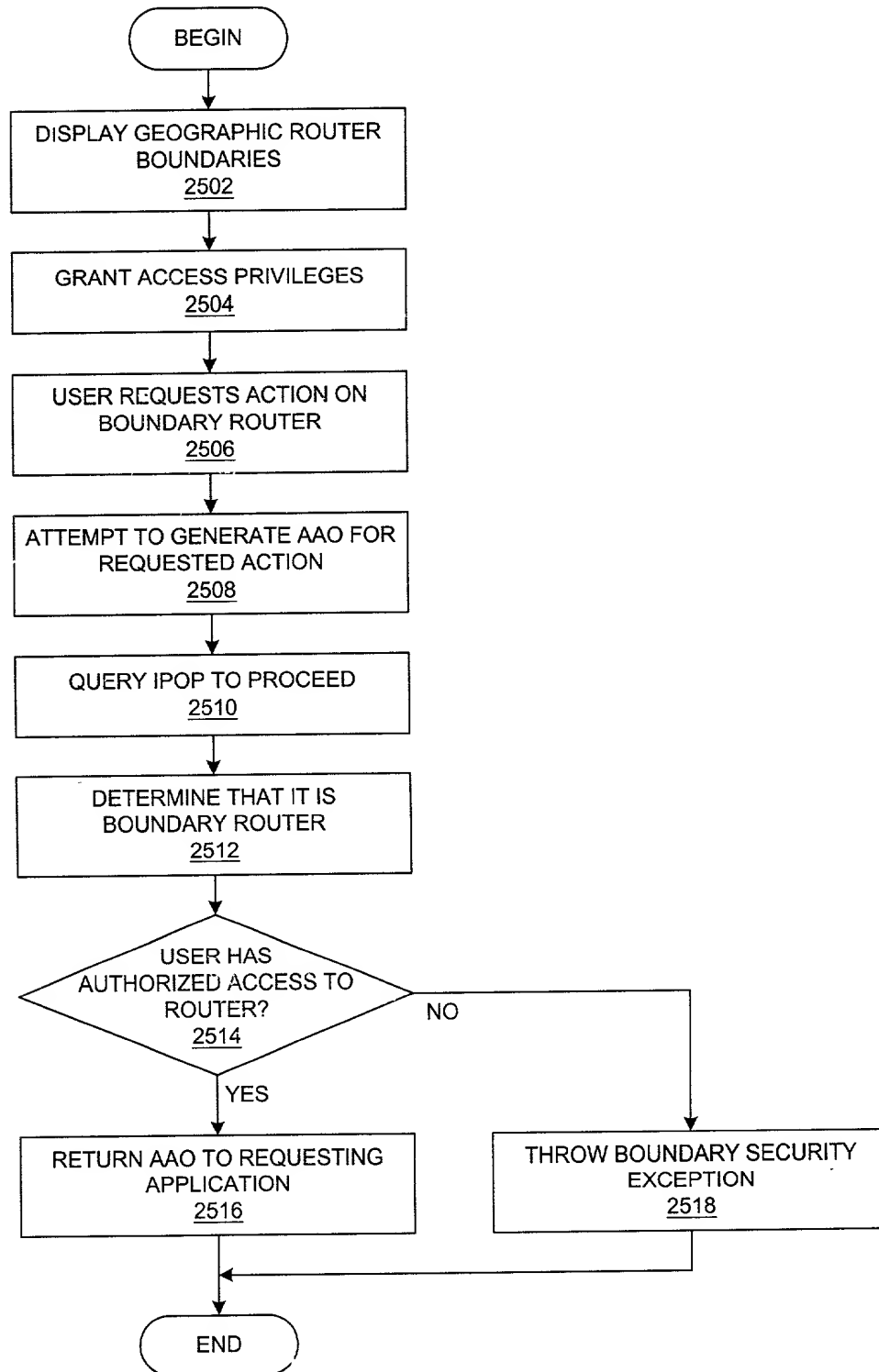


FIG. 25

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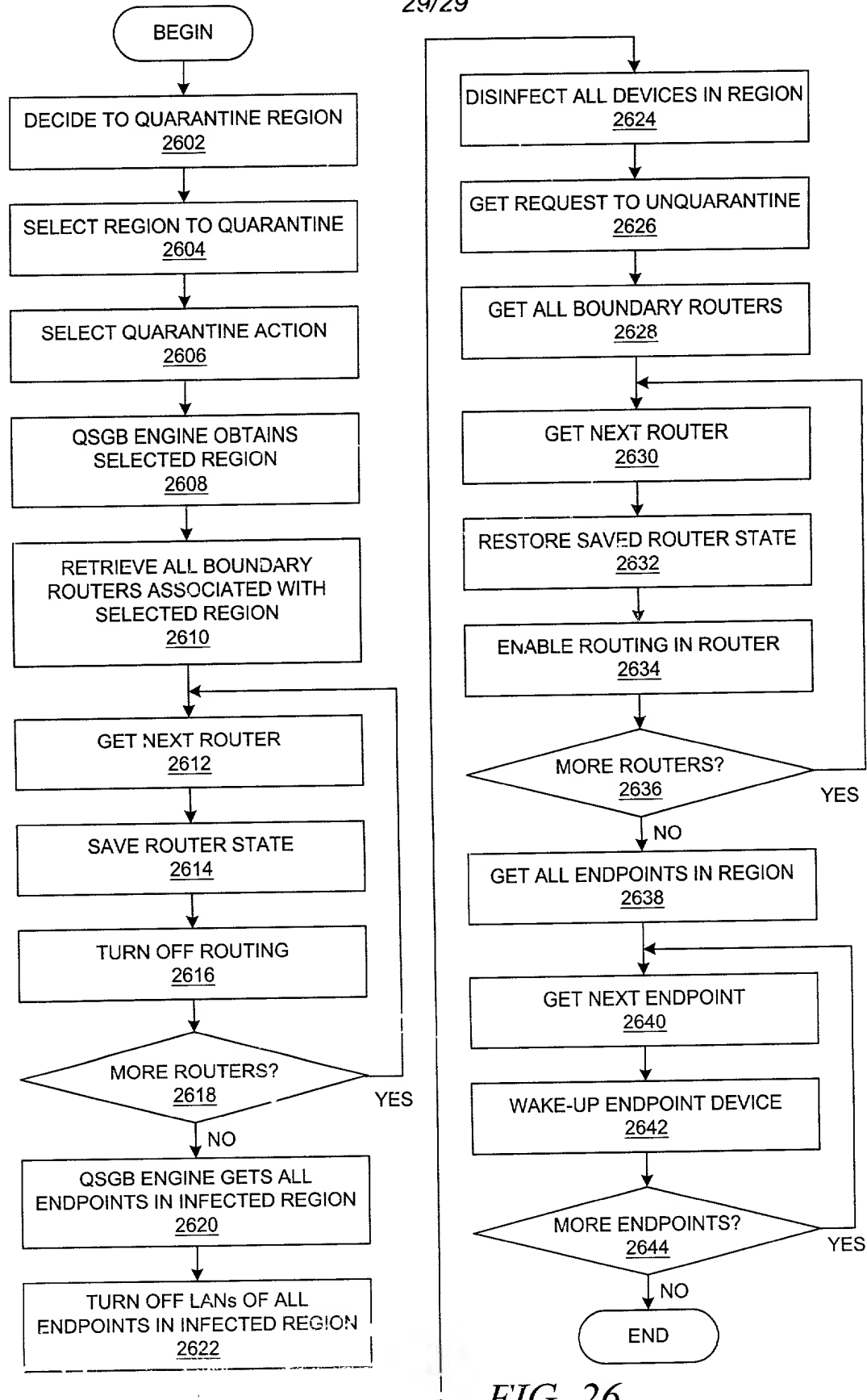


FIG. 26